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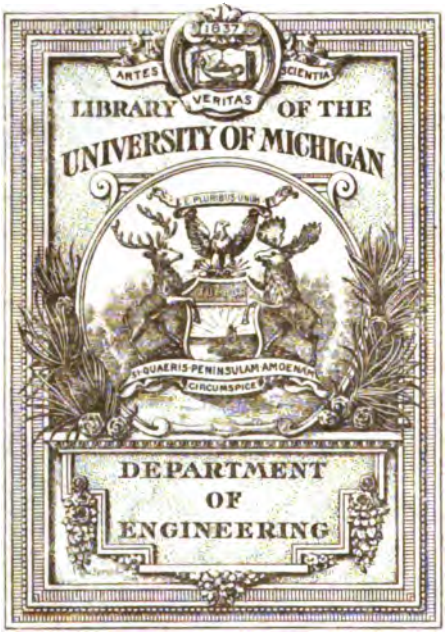
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THE SURVEYORS' INSTITUTION

(*Incorporated by Royal Charter*),

12, GREAT GEORGE STREET, WESTMINSTER, S.W.

TRANSACTIONS.

VOL. XV.

SESSION 1882-83.

LONDON:

PUBLISHED AT THE INSTITUTION,

12, GREAT GEORGE STREET, WESTMINSTER, S.W.

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NOTICE.

This Institution does not, as a body, hold itself responsible for statements made or opinions expressed, either in the Papers read or in the discussions which have occurred, at the Meetings.

The Surveyors' Institution

(Incorporated by Royal Charter),

12, GREAT GEORGE STREET,

WESTMINSTER, S.W.

OFFICERS, 1882-83.

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CHARLES DRUMMOND

Honorary Secretary.

JOHN WORNHAM PENFOLD

Secretary.

JULIAN C. ROGERS

The Surveyors' Institution

(Incorporated by Royal Charter)

Is established—

1. To secure the advancement and facilitate the acquisition of that knowledge which constitutes the profession of a Surveyor, viz.—the art of determining the value of all descriptions of landed and house property, and of the various interests therein; the practice of managing and developing estates; and the science of admeasuring and delineating the physical features of the earth, and of measuring and estimating artificers' work.

2. To promote the general interests of the profession, and to maintain and extend its usefulness for the public advantage.

The Institution consists of four classes, viz.—Fellows, Professional Associates, Associates, and Honorary Members, with a class of Students attached.

A Fellow must be more than twenty-five years of age, and must have acquired a practical knowledge of surveying in one or other of its branches as above defined; he must have so practised on his own account for more than five years; or must be a member of a firm of Surveyors established upwards of ten years; or in partnership with a Surveyor of ten years' standing; or must have passed the Examination declared in the Rules of Examination to appertain to the class of Fellows.* Fellows have the right to use the letters F.S.I. after their names.

A Professional Associate must be more than twenty-one years of age, a Surveyor by profession, in practice on his own account or employed as an Assistant in a Surveyor's Office or qualified for the class by having passed the Students' Proficiency Examination, or the Professional Associates' Qualifying Examination.* Professional Associates have the right to use the letters P.A.S.I. after their names.

* *The Rules of Examination can be obtained on application to the Secretary.*

An Associate must be more than twenty-one years of age, not a Surveyor by profession, but his pursuits must be such as to qualify him to concur with Surveyors in the advancement of professional knowledge.

An Honorary Member must be a person who, either by reason of his position or experience, or his eminence in science, may be enabled to render assistance in promoting the objects of the Institution, but who is not engaged in practice as a Surveyor in Great Britain or Ireland. He has the privilege of being present and taking part at all Ordinary General Meetings, and of access to the Library, but no right of voting, discussing, or otherwise interfering in the affairs of the Institution; nor is he called on to contribute to its funds.

Students (who must not be under eighteen years of age) qualify as such by passing the Students' Preliminary Examination. Candidates for Studentship who can produce a Certificate of having passed the Matriculation Examination of the University of Oxford, Cambridge, London, or any other University in the United Kingdom, or who have passed, with Honours, the Senior Local Examination of the University of Oxford or Cambridge, are exempted from this Examination, and may be admitted by the Council on the recommendation (according to a form) of four Fellows and two Associates, or of the Fellow or Associate to whom they are or have been articled; but it is obligatory on all Students to undergo the Proficiency Examination at the close of their Student course, at the time and under the conditions applying in each particular case under the Rules of Examination.

The Council may accord to Students such privileges, subject to such terms, regulations, and restrictions, as they shall from time to time prescribe.

Any person desirous of being admitted into the Institution (excepting to the class of Students) must be proposed and recommended according to a form, in which the full name, place of business (if any), usual residence, and qualifications of the candidate must be distinctly specified. This form must be subscribed by him, and signed by at least six Fellows or four Fellows and two Associates, certifying a personal knowledge of the candidate; or, in the case of a person who has passed the Qualifying Examination, by four Members of the Council,

of whom the President shall be one, after careful enquiry into the antecedents of the applicant.

The proposal so made, being delivered to the Secretary, will be submitted to the Council, who, on approving the qualifications will determine the class for which the candidate is to be presented for ballot at an Ordinary General Meeting.

The following are the rates of contribution to the funds :—

	Annual Subscription.			Admission Fee.		
	£	s.	d.	£	s.	d.
Student . . .	1	1	0	—		
Associate . . .	2	2	0	3	3	0
Professional Associate	2	2	0	3	3	0
Fellow . . .	3	3	0	5	5	0

No person can become a Member (other than an Honorary Member) of the Institution, unless and until he pays as his first Subscription to the Institution, in the case of becoming a Fellow of the Institution, the sum of Eight Guineas, in the case of becoming a Professional Associate of the Institution, the sum of Five Guineas, and in the case of becoming an Associate of the Institution, the sum of Five Guineas.

All Fellows, Professional Associates, and Associates, are required, within twelve months after their election, to deliver to the Council an original Paper on some subject connected with the profession, or to make a donation to the Library or Collection.

The affairs of the Institution are under the management of a Council, which is elected annually, consisting of a President, four Vice-Presidents, eleven Fellows, one Professional Associate, and two Associates.

The Session of the Institution commences annually on the second Monday in November, and continues to the end of May. The Ordinary General Meetings are held on every alternate Monday during the Session. At these Meetings original communications are read on some professional subject, and their merits fully and freely discussed. Every Member has the privilege of introducing one visitor to these Meetings. Members are entitled to a copy of any printed publication issued by the Institution after their admission.

PAPER 105.
No. 187.

THE OPENING ADDRESS

BY

EDWARD RYDE, PRESIDENT,

AT THE ORDINARY MEETING OF

THE SURVEYORS' INSTITUTION,

NOVEMBER 13TH, 1882.

UNDER circumstances over which we have no control, I occupy this evening a position which none of my predecessors have filled, and none of my successors can ever occupy. Under the 17th Article of the Charter, the first President of the Chartered Institution continues to hold office until a President has been elected under the By-Laws. By the 43rd Article of the Charter, the Council were required to prepare draft By-Laws, and to send a copy to each Member of the Institution, inviting observations thereon, within a time limited by the Council. They were then to take into consideration the observations so offered; to finally settle the draft By-Laws, and to send a copy to each Member of the Institution. They were then directed to call a General Meeting for the consideration and adoption of By-Laws, to be held on a day not less than one month, and not more than three months, after the expiration of twelve months from the date of the Charter. That Meeting was held on the 26th ultimo, two months after the expiration of the twelve months from the date of the Charter; but it was not on account of its being an exact mean between the minimum and maximum time allowed for the purpose, that the date of the Meeting was fixed. It would probably

have been fixed a month earlier, had it not been for the fact that in September a large number of the Members of the Institution are generally absent from their homes. Under these circumstances it was felt that a good Meeting might not be secured if it had been called for any time in September. There were, of course, minor reasons, including the necessity for fixing a day which would suit the convenience of a majority of the Members of the Council. At that Meeting the By-Laws were adopted, and they have since been submitted to the Privy Council. As soon as they have been allowed by the Lords of the Council, they will come into operation, and have an effect upon the regulation and government of the Institution. There must then be an Election of President, Vice-Presidents, and a Council.

No doubt the privilege of occupying the position which I now fill for a third time is one of great honour and distinction, for which my acknowledgments are due to the Members of the Institution; but it is a privilege (borrowing words from the second Address of the first President of this Institution, Mr. John Clutton) associated with anxieties and duties which it is impossible to cast aside.

It was also stated by Mr. Clutton in the Address to which I have referred, that he had hoped, both for the sake of the Members and for his own sake, that, having seen the Institution fairly started, he might have retired from the more active part which, in common with the earlier Members, he had taken during the first Session of its existence. I desire to say that I regard my present position as exactly the converse of that which Mr. Clutton then filled. I should not have consented to fill the office of President for a longer period than two years had I not been desirous of seeing the Institution, as reconstituted and re-established under the Charter, fairly started with By-Laws allowed by the Lords of the

Council, and with a President, Vice-Presidents, and Council legally elected under those By-Laws.

As stated in the Charter, the profession of a Surveyor is one requiring a wide and varied training, in respect of the frequent employment of its Members in the capacities of Umpires, Arbitrators, Witnesses, Valuers, Advisers, Purchasers, Sellers, and Managers of Landed Estates in all parts of the United Kingdom; and, as further stated, the Institution, undoubtedly comprises amongst its Members most of the leading Land-Agents and Surveyors, Surveyors and Valuers, and Building-Surveyors in the United Kingdom, and includes, among its Honorary Members, Members of both Houses of Parliament, and men occupying high positions in public offices and in the scientific and learned professions. The Charter also emphasises the fact that the Institution aims at the improvement of the status of Surveyors, regulating and shaping the customs and usages of Surveyors, providing the means of professional training, and securing the interchange and dissemination of practical information, and thereby the better discharge of duties affecting interests of great public importance. It is certainly not too much to state that the Institution at the present time is greatly in advance of the Institution of fourteen years ago. If nothing more can be said with confidence, this certainly must be true of it, that its older Members are more experienced, and its younger Members far better educated, than those of fourteen years ago. But the profession of a Surveyor had hitherto been—perhaps more so than any other profession—open to the employment of men quite unqualified to act as Surveyors, except in some one special particular, and whose introduction to the profession has been due to some accidental circumstances. The Surveyor of the future will be able to present to the public a testimonial or certificate that he is at least suffi-

ciently qualified to practise the profession by an ability to pass an examination without which the right to use the letters F.S.I., except under very special circumstances, cannot be acquired.

Perhaps the best illustration of the advantages of such an Institution is afforded by the Royal College of Surgeons. No person can get employment as a medical practitioner, unless he can attach to his name the initials M.R.C.S. The use of these letters is a guarantee that the user of them has passed through a system of education and training, and has undergone an examination which requires a considerable amount of knowledge and skill. The analogy is, no doubt, incomplete, inasmuch as our profession will never become a close one; but the letters F.S.I. will confer a virtual monopoly, as regards the best class of work, upon those who have the right to use them. Of course, it will be quite understood that it will take a few years to wear out the original qualification of a Fellow of the Institution, and to arrive at a period when all its Fellows will be Fellows by examination. It was necessary to provide an intermediate period for working out the change, inasmuch as the present Fellows of the Institution would scarcely have submitted themselves to an examination, and a new class of Fellows can only be produced after a series of years. Attention should, however, be drawn to the fact that the Council have made arrangements by which any person may at once submit himself for examination, and may secure all the privileges which will belong to Fellows in the future. The younger Members are also permitted to present themselves at once for examination, and thereby to obtain the immediate distinction of "Professional Associates" of the Institution. On the whole, there can be little doubt that the Members of the Institution are to be congratulated on the complete success of the application for the Charter, and

upon the working of it, so far as it has been in operation at the present time. They are also to be congratulated upon the prospects of the Institution as regards its educational movement, so far as an inference can be drawn from the number of applicants for examination at the present time. Indeed, the prospects of the Institution appear to be in every particular as good as they could possibly be. Assuming that the previous practice of electing the Senior Vice-President to the Office of President is followed, no selection could possibly be made which would promise better for the welfare of the Institution. In Mr. SMITH-WOOLLEY we have not only a thoroughly-educated Surveyor and Land-Agent, but an hereditary Surveyor, whose father was one of the most able Surveyors of his day. Moreover, Mr. SMITH-WOOLLEY had the very great advantage of assisting his father in his father's lifetime, and of succeeding to his large business at his death. He was also one of the earliest promoters of the Institution, and has been one of its stanchest supporters, and a most constant attendant at the Council and General Meetings.

That the staff of the Institution continues perfectly satisfactory, has been evidenced this evening by the interesting ceremony which preceded this Meeting. That ceremony consisted in presenting to your Honorary Secretary, Mr. JOHN WORNHAM PENFOLD, a service of plate, as some slight recognition of the obligation under which the Institution lies to him for his long-continued and gratuitous services; services which the Council and Members of the Institution trust may be prolonged for many years.

The Library continues to increase in quality and quantity, and the general usefulness of the Institution becomes daily better understood.

In my last Address I invited you to read Mr. JOHN HORATIO LLOYD's speech at the first General Meeting of

the Institution, as reported in the first volume of our "Transactions," at page 14; and if there is one among you here present this evening who has not read that speech, I beg permission to repeat my request. I even go almost as far as to ask those among you who have read it to read it again. You cannot fail to be pleased and gratified with it. In happy language, it defines the position and duties of a Surveyor, and the objects of the founders of this Institution.

Reviewing the work of the profession for the last forty-five years in which I have been engaged upon it, the first great business upon which the Surveyors were occupied at the commencement of that period was the surveying, mapping, and valuing of parishes under the Tithe Commutation Act of 1836 (6 & 7 Will. IV., cap. 71) and the Parochial Assessment Act of the same year (6 & 7 Will. IV., cap. 96). Under the first-mentioned Act, the whole of the titheable lands of England and Wales were surveyed and mapped as well as valued; and under the last-mentioned Act, the whole of the parishes in England and Wales were valued, and very many of them were surveyed and mapped. This work produced a large number of Assistant-Surveyors, many of whom, after a few years, became very efficient in their profession; and there are very few Surveyors of the present day who could compete with some of them for accuracy and despatch. But the work did not last longer than about ten years, and then the least efficient men were drafted off to other employments. Some of the tithe maps were equal in quality to any maps which have been since produced. Such a perfect system of keeping a Field Book was arrived at that the work could be plotted as well years after the survey was made as at the time of making it. A perfect system of triangulation, relying almost entirely upon the chain, without the use of instruments;

covering as much of the land to be surveyed by one large triangle as possible; trusting to no internal scribing within such triangle; making each line a "through line" between two other lines; limiting the off-sets for a map on a scale of three chains to an inch to a short maximum length; and many other similar details which it would be out of place for me to enter upon now, were among the requirements of the best offices. The object which I have now in view is to stimulate the younger members of the profession to practise the making of surveys of large blocks of land (say of 2,000 acres) for the express purpose of encountering some of the difficulties which attend such work, and of dealing with them practically, in preference to relying upon theory and knowledge upon the subject derived from books alone. It is very much to be desired that the practice of surveying and mapping should be kept up by Surveyors, notwithstanding the fact that the Ordnance Survey of the country and the maps published by the Ordnance Department have very much superseded maps which in old days were the production of Civil Surveyors and Land-Agents. What is to be feared is that the class of Chain-Surveyors will degenerate, if not altogether decline, and some attention has been given to the point in the scheme of examinations recently published by the Council.

Valuations for Parochial Assessments have, of course, descended to the present day. It is, however, a very common occurrence to find that a new valuation of a parish for rating purposes is made by the Overseers and by a Committee of Parishioners. In such a case, the process adopted is to alter and amend some previous valuation, instead of having an entirely new valuation made by competent persons. In many cases, where a new valuation is made by a Surveyor, under contract with the Assessment Committee of a Union, the appointment of the Surveyor is

the result of an open competition, and the price paid is one which will not remunerate a competent man for doing the work carefully and properly. Therefore very little satisfaction is given, and many appeals follow. One of the most drastic remedies which could be applied to the incidence of Local Taxation would be the passing of an Act rendering it compulsory to have a new valuation of every parish as often as once in every five years.

The next great work which fell upon Surveyors arose under what is known as the Railway Mania of 1845. Notwithstanding the fact that the Tithe Act and the Poor Law Assessment Act had created a large number of Assistant-Surveyors, the number was found to be wholly inadequate for the requirements of the Parliamentary work of the autumn of that year. In the month of November of that year, Assistant-Surveyors earned very large sums of money in the preparation of Parliamentary plans and sections. But this great and sudden influx of work did not benefit the whole body of Surveyors. Many who contracted for the survey of lines of Railway in the month of August of that year, and were bound to complete their work by the 30th of November, sustained very great losses, owing to the great increase of remuneration required by Assistants. In a very few years the Railway work fell off, and the race of Assistant-Surveyors had to seek employment in other occupations. At the present time, if any large survey were to be required, it would be almost impossible to get it done within a reasonable time, and then only at very great cost compared with the price originally paid for the Tithe and Poor Law Maps. The Tithe Maps were of two classes, distinguished as First and Second-Class Maps. The First-Class Maps had to be sent to the Tithe Office in London to be tested by Captain Dawson, a Royal Engineer and Assistant Tithe Commissioner. The Field Books had to accompany them, and,

in the event of discrepancy, a test-line was chained through the Parish. In the event of the Map failing to stand the test, it was returned to the Surveyor to be replaced by a correct one.

The test by examination of the Field Books, although perhaps the best that, under the circumstances, could have been made, was by no means an infallible one. It was not an unknown circumstance for an unscrupulous Surveyor, who had made a Map which had required adjustment in its details, to make a new set of Field Books to fit the Map. The scale of the First-Class Maps was generally that of three chains to an inch, but a four-chain scale was not objected to, and a few Maps were plotted upon that scale. These Maps have been sadly neglected, and suffered in many cases to fall into complete decay. The Ordnance Survey Maps have been substituted for them for many purposes, but as part of the title to the Tithe Rent-charge they will always be valuable.

The enclosure of Commons gave a good deal of work to Surveyors during the first twenty-five years of the period under review, and some very excellent maps were made for the purpose. The allotting and setting out of the lands enclosed also afforded a good deal of employment. Nearly the whole of the Common fields of the country and a large number of Commons have long since been enclosed, but some still remain which ought to be so dealt with. An unfounded objection has arisen to the enclosure of all Commons, so that this branch of the work of a Surveyor has nearly passed away.

The creation of Sewage Farms, and the purchase of land by Corporations and Local Boards for that purpose, gave a little impetus to the business of a Surveyor some ten years since. At the present time, very little land is being purchased for Sanitary purposes, and there are not many

Arbitration or Jury Cases arising out of this class of business.

The purchase of land for Railways has afforded very large employment for Surveyors in all parts of the country, and has created a class of skilled witnesses which had no existence five and forty years ago. This class of business is likely to continue for some years hence; there are still a large number of Railways to be made, and every main line of Railway which now exists must inevitably be widened. The stations will also require great enlargement. It is possible that, instead of widening the existing lines of Railway, the requisite additional accommodation will be made by the making of alternative lines. As an illustration of this principle, the course taken by the London and North Western Railway Company in providing additional lines between Roade and Rugby, may be mentioned. Instead of widening their existing line between these two stations, which would also have involved the widening of the Kilsby Tunnel, and would have opened up no new country, the Directors have made an entirely new line *viâ* Northampton, which combines the desired effect of increasing the capacity of the railway between Roade and Rugby, with the additional advantage of placing the town of Northampton upon a direct main line of railway to London, and opens up and accommodates a new district of country. The same thing is being done, on a smaller scale, by the London and South Western Railway Company, between Surbiton and Guildford. The making of a new line between these two stations, *viâ* Cobham and Horsley, affords double accommodation between Surbiton and Guildford, and, at the same time, opens up an entirely new district for residential purposes, and accommodates a number of important places hitherto without railway accommodation.

These observations apply with still greater force to the

construction of goods lines. There appears to have grown up a feeling that merchandise is detained longer than is necessary in the hands of the railway companies; and this feeling has found expression in a project which is to be brought before Parliament in the ensuing Session. The idea is to construct "plateways" for goods and merchandise traffic, the advantage of which is said to consist in the fact that waggons, trollies, and goods trucks, which are to run upon them, and which are to have flat wheels, will be capable of travelling over the common streets and roads, and of being taken alongside of the warehouses which are the ultimate destination of the goods traffic. The project seems to be somewhat retrograde in its character, and one which can scarcely be expected to compete successfully with railways. It will surely be possible so to improve, where necessary, the means of trans-shipment from the sea to railways, and from the railways to the merchants' warehouses, as to enable goods to be still carried on railways in successful competition with plateways. One improvement suggests itself at once, which would go far to accomplish the object of the plateways, namely, the construction of railways of easy gradients between seaports and other centres of commercial industry, which should be exclusively used for goods traffic, and should be so laid out as to afford the largest amount of benefit to the largest amount of commerce. Such lines, made jointly by three or four existing companies, to be used by them on terms to be regulated by the traffic passing over them, would relieve the passenger lines of their most dangerous traffic, and would, at the same time, facilitate the transmission of goods to an extent which is not practicable while the two kinds of traffic are mixed up together. The plan adopted by the South Eastern Railway Company for dealing with through luggage between Charing Cross and the Continent, is a

simple method of saving labour, which might be enlarged and applied to certain descriptions of goods traffic. The luggage is packed in a large box, which is lifted from a truck on the railway to the deck of the steamer, and again from the deck of the steamer to a truck on the Continental Railway, without break of bulk. But whether the future requirements are for plateways or railways, a large amount of Surveyors' business in connection with one or the other appears likely to be required.

I am particularly desirous of directing the attention of the Students and younger Members of the Institution to the study of land valuation. It is constantly assumed in Compensation Cases and other Inquiries involving the valuation of land, that the value of one piece of land is to be estimated and determined by the price which has been paid for another. It must be obvious that, where such a course is taken, the man who makes the valuation is not the expert Land-Surveyor who has been called in for the purpose, but the purchaser of the other piece of land upon which the valuation has been based. This purchaser may be a very good judge of the value of land, or he may know nothing at all about it; and the price may have been given under special circumstances, or may have been the result of pure accident. The purchaser may have been the owner of adjoining land, to which additional area may have been of the utmost importance, and for which he was able to pay a very large price; but, his requirements having been satisfied, he may no longer be a purchaser of land, or, if a purchaser, would not give more than it was worth to another person. To give a simple illustration:—A piece of land was once required in a particular situation, near to a large tidal river, for the purpose of carrying on an experiment in the breeding of fish. Under these circumstances a very large price was paid for about two acres. The adjoining land was sub-

sequently wanted for the purposes of a Water Company, and the owner of the meadow persuaded himself that his land was worth the same price as that which had been paid for the fishery. The misconception does not always apply in the direction of an over-estimate; under-estimates sometimes arise; for instance, a forced sale of land may have taken place, and some purchasers may have obtained what are known as good auction bargains. It by no means follows, as satisfactory evidence, that the land which was sold by auction was sold at its full value, because there happened to be no one at the auction willing to give more for it. It sometimes happens that persons are very anxious to acquire land in given situations who do not happen to see the announcement of land for sale in that situation, and fail to purchase in consequence.

What I want to impress upon Students and young Surveyors is, that each piece of land is to be valued on its own merits, and that the value of every piece of land depends upon the use which can be made of it. Land which can only be used for agricultural purposes has only a value in proportion to its fertility, and its situation with regard to markets, roads, and railways. Land which is capable of being used for building purposes has a value in proportion to the property which can be erected upon it. If it is suitable for dwelling-houses, then the value is to be measured by the number of houses for which it will afford sites, and the amount of ground-rent which each house will carry. The fee-simple value is the number of years' purchase at which the ground-rents may be capitalized, regard being had to the time within which they can be created. In the valuation of houses, it is often assumed that a Surveyor who does not reside in the locality in which the property is situated must make local enquiries as to what other houses are let at; but a more correct course to adopt is to look at

the locality with reference to supply and demand, and to ascertain, not what the houses are let at, but what they ought to let at. If there are a large number of empty houses, it is quite clear that the utmost rent which could be expected is the equivalent to a fair rate of interest upon the cost of producing the property, and that, in order to get houses let, rents something within that sum would have to be accepted. If, on the other hand, it is found that the population of a place is greater than the houses can accommodate, it is quite clear that the rent which has just been referred to is the minimum, and not the maximum, rent which these houses would command. If two people are in the market for one house, one is likely to bid higher than, under ordinary circumstances, the house would be expected to let at.

Much importance is at times attributed to the evidence of Surveyors who have a local knowledge; but what is really wanted, is an admixture of local and general knowledge. A local Surveyor has great knowledge of everything in the locality; but his opportunities for acquiring general knowledge are limited just in proportion to the extent to which he practises locally. A Surveyor with general knowledge will often be able to point out a use or a value in property which may not occur to a local Surveyor.

The business of land valuation must always increase in every country with the growth of population and wealth and the extension of trade. Recent legislation has immensely increased the difficulty of valuing land by throwing a doubt not only upon the security which it affords to its owner as an investment of capital and a means of producing annual income, but also whether he will, in the future, be permitted to have that full benefit and enjoyment which has hitherto rendered the possession of land such an object of

desire, and a pleasant and certain investment of the savings of industry and enterprise in commercial pursuits.

We hear, in many quarters, of the want of legislation upon "*The Land Question*"; but the gentlemen who clamour for an alteration of the law in this respect do not at all times appear to have a very clear comprehension of what the Question means. According to some, it means the facilities for making judicial arrangements between landlords and agricultural tenants for the protection of the tenants. Practical Surveyors and Land-Agents are perfectly aware that, at the present time, the tenants of this country, encouraged by agitators, and by recent legislation, require very little protection in the direction suggested. They are quite able to look after themselves and their own interests; and there can be no doubt that a tenant, at the present time, seeking a farm, if he has sufficient capital for its proper working, and the character of being a good farmer, can have the pick of a large number of first-class properties, and can make almost his own terms. Sometimes "*The Land Question*" takes a different form; and it is said that it would be most advantageous for this country if, instead of the magnificent estates which are now possessed by some landowners, the land were all cut up and divided into small properties, so as to be pretty equally divided among the adult population of this country. The problem is rather a difficult one for a practical man to realize, who considers it at all from a practical point of view. If, for instance, the country were divided into very small estates, there would be some of them which would possess infinitely superior advantages to others. Some would be watered by magnificent tidal rivers. Others would possess frontages on good highways. Some would be near towns, and some mere back lands in remote districts. If competition in the distribution were to be disregarded, great dissatisfaction would

be felt by those owners who had the inferior plots, and great exultation on the part of those who had the superior ones. This disaffection would soon spread into uncontrollable discontent. The man who had his plot of land in a remote position would not long desire to own it; but, if the sale of land in open competition were to be restricted, it might be very difficult for him to become dispossessed of it. If, on the contrary, such people could sell in open competition, one fortunate possessor of large capital would soon become the possessor of a large number of these individual lots, and the same state of things as now exists would soon recur.

Again, if every inhabitant of a town is to become a landowner, the number of pieces of land which would be required would be so great that an area of many square miles would be necessary to meet the demand. So much so, that the resident of some large town might find that his piece of land, the possession of which, it is assumed, will afford him so much pleasure and enjoyment, may be situated in a position miles from his home, where he would find great difficulty in cultivating it or making any other use of it. It is very difficult indeed to see how a method of dealing with land can be devised different from that which regulates the dealing with all other kinds of property, which are directly influenced in a variety of circumstances by the laws of supply and demand. If the supply of land in any quarter is limited, and the demand is great, it is inevitable that it will continue to possess, in that situation, considerable value. On the other hand, if the demand is small and the supply great, as on the hillsides of Cumberland and the mountains of Scotland, the value of land in these situations must remain merely nominal.

Sometimes we hear the cry of "*The land for the people.*" If one of the advocates for this state of things

is asked what he means, or what it is he thinks that Parliament should first do in the matter, he tells you that he hopes soon to see, as a first step in the right direction, the Law of Trespass repealed. If you happen to say to him, "Well, but you surely would not recognize the right of every member of the dense populations of our great cities to have free access to the pleasure grounds of the aristocracy?" his reply is, "Why not? The lower classes represent the life and soul of this country." That is a difficult proposition to understand; but, for the sake of argument, admitting it to the full, let us see a little how it would work. If it means anything, it means that the whole, or at any rate a large portion, of the land of the country is to be used in common by the whole of the inhabitants. Nevertheless, it is to be presumed that some limit, at all events, is to be placed upon those lands which are now covered with dwelling-houses. It cannot mean that the site of a private dwelling-house, be it an artizan's dwelling or a nobleman's mansion, should be open and free of access to every inhabitant of the country. To that extent, therefore, a limit must be put. But, excepting all the lands that are now built upon, and dealing only with those which are now open, we need not go far for a practical illustration of how this proposal would work.

Assume the existence years ago of a large common without a house upon it. A wild open waste. Suppose a railway to have been made through it, with branches which have created a junction on the waste in question. Under the state of things which has existed, the land round the junction station has been, and is being, covered by a number of houses. Assume again that the advent of the railway had been subsequent to the recognition of the great principle "*The land for the people,*" what would have occurred? None of that land could have been built upon; the public

would have had free access to the whole of it; and that great increase of population which has taken place must have occurred elsewhere, where it would have been equally difficult to have found it a habitation. The population of London increases at the rate of 2½ per cent. per annum at the very least. Where would that increase of population go in the future under the working of a system of "*The land for the people*"? If the advocates of this system of dealing with land do not exactly mean that building operations in the future are to be limited, the question would arise, Which of the lands in use by the people are to be taken from the people and applied to these residential requirements? Moreover, if there is to be no ownership in land, who is to sell the land, and who is to determine what class of people are to be entitled to take it? Are the parents or the children to have the first choice?

There are many other considerations which might be advanced, but, in fact, the whole suggestion is nonsense. There can be no such thing as the practical working out of the theory of "*The land for the people.*." There always has been a proprietary interest in land, from the days of the patriarchs down to the present time; and there always must continue to be owners of land. Moreover, there will always be rich owners and saving men who can buy property, and improvident men and poor men who cannot indulge in the luxury of its possession. The fact probably is that at the present time we want as little legislation in connection with land as is required for any one object; and certainly we want little or no legislation as between landlord and tenant, or between vendor and purchaser. It might be advantageous to us if we could be assisted by Statute—

(1) In the transfer of land in the direction of simplicity and reduction of expense.

(2) By a compulsory redemption of Tithe Rent-charge.

(3) A compulsory enfranchisement of Copyholds, and

(4) The redemption of Land-Tax.

Many unsuccessful attempts have been made to establish the first of these objects, and all of them were more or less referred to at length in my previous Addresses.

The Settled Land Act, 1882, is a Statute which will produce important results upon landed property. Its main object is to enable a tenant for life to dispose of the settled land (except the mansion house and park) according to his own judgment, without the necessity for the trustees of the settlement taking any active steps, or for the estate being put to the expense and delay of proceedings in Chancery under the Settled Estates Act, 1877. The tenant for life will not receive the purchase-money; that is to be paid to the trustees or into Court for investment. The mansion and park may in proper cases be sold, but not by the tenant for life alone; he must get the consent of the trustees, or an order of the Court.

When a sale has been effected, investment of the purchase-money is allowed either in Consols or other Government Securities, or in East India Stock, or in any other kind of security allowed by the settlement itself. The income of the investment is to go as the rents of the lands would have gone if it had not been sold, and the capital is to devolve to the remainder man as if there had been no sale. The purchase-money may be applied at the option of the tenant for life on the improvement of the remainder of the estate, or in paying off encumbrances on the settled land remaining unsold, or in buying up land-tax, ground-rents, or other charges thereon; or in buying other land to be added to the settled land. The Act also enables a tenant for life to grant building leases for 99 years, mining leases for 60 years, and other leases for 21 years, and if a premium is taken with the lease it is to be dealt

with as purchase-money. The Act also enables a tenant for life to make improvements with his own money, and to charge the amount expended on the settled land for the benefit of his personal estate after his death, subject to provisions as regards the character of the improvements and the expenses incurred. The Act also confers powers of enfranchisement of copyhold, of exchange, and of partition.

There remains to be mentioned one improvement, which can only be brought into operation by the action of Parliament. It is the adoption of decimal measures and decimal coinage. Nothing could be done which would tend more to simplify business transactions, both as regards mensuration and book-keeping, than the establishment of the decimal system. If, as regards the coinage, the sovereign were made the integer and divided into a thousand parts, instead of nine hundred and sixty as it now is, the arithmetical calculation of all questions which could arise in business would be immensely simplified. In the measurement of land we have already the decimal system, the acre being the integer divided into ten square chains, or one hundred thousand square links; but in no other measure does this system prevail. The only practical step which has been made in this direction during the last fifty years, is the coinage of the florin, of the value of two shillings, one-tenth of a pound.

In an Address such as this, it is not permissible to omit to mention the subject of *Ensilage*, as to which a controversy is now going on in the newspapers. But it is quite sufficient to say that, at the present moment, the evidence concerning it is conflicting, and that it has by no means been proved that its adoption in this country may ever be hoped for.

The Royal Commission on Agriculture has made its final Report; and the several blue books which record the results

of its labours contain a mass of valuable information and statistics, the like of which has scarcely ever been collected before. But its recommendations and conclusions relate to no new thing. They point to a return to better seasons, finer weather, and a greater amount of sunshine, as the chief things which are wanted to relieve depressed Agriculture; and surely these are things which, in all human probability, will prevail again some day. The Americans have been very hard upon us, no doubt; but they have, nevertheless, done much to help us. They have invented a number of agricultural implements for our use. They send us, it is true, a little too much corn, and they have bothered us a little with the amount of cattle which they have forwarded to our shores. Even in this question of the weather, oddly enough, it is the fact that we were much better off before they took to sending us their prognostications of what we are to expect. But, notwithstanding what they have done for us, we must not forget that circumstances in the future may turn against them, and in our favour. As their population increases, they will require more corn and more fat stock for their own consumption. Moreover, as they continue the cultivation of their land, they may find that they will require to renew some of its fertility in cases where until now they have been dealing with virgin soil without making provision for renewal or replenishment. They will also find themselves handicapped in the question of carriage, for, as their population increases, so they will be driven back to the interior of the country, from which access to our ships will not be so economical, or so readily afforded as it is at present. Upon the whole, it is not unreasonable to hope that the time will come when English Agriculture will again prosper: when English land will again be sought after as a popular investment of money: when Parliament will see that it is unwise to inflict new legislative restrictions upon the free

dealing with land: and when the indomitable industry of Englishmen will prevail over all obstacles.

A few words ought to be added concerning the Papers which will be read and discussed at the General Meetings of the Institution during the forthcoming Session; and I would again urge upon the Members that they cannot more effectually promote the success of the Institution than by preparing Papers upon subjects of professional interest upon which they happen to have had special experience. Our General Meetings are of necessity attended by Members, the majority of whom are resident in London; but there is always a minority of countrymen present, and it must be remembered that our published "Transactions" circulate throughout the entire length and breadth of the United Kingdom, and on to the continent of Europe. The interest in them is therefore not limited to those who attend the Meetings and take part in the discussion, but they are perhaps more closely read and studied by those whose opportunities preclude them from attending the Meetings, and to whom the great interest in the Institution is centred in the published "Transactions." During the past year the Papers have possessed considerable interest, and the discussions upon them have been very practical. The Paper upon Land-Tax, which for some time I have been anxious to hear discussed, was not read during the last Session for want of opportunity: that, with other Papers will come on for discussion in the ensuing Session. But the first Paper of the Session, namely, that to be read on the 4th December, upon "The Ordnance Survey, and the Maps published by the Ordnance Department," will be an important one. It is particularly requested that Members who make much use of these maps will attend and take part in the discussion; because it is

believed that any recommendations which the Institution, as a body, may send to the Director-General of the Survey, will receive his most careful consideration. The Paper will be very short, but the discussion, it is hoped, will be interesting.

I have detained you long enough. I have to thank you for the attention with which you have listened to me, and indeed for all the courtesy which has been shown to me during my Presidency. My desire has been to promote and advance the best interests of the Institution, and to serve that profession to which I have always been so attached, and to which I am proud to belong. I trust that my efforts have not been altogether unsuccessful.

Mr. R. C. Driver (Fellow) begged to propose a vote of thanks to The President for his most able and practical Address. It was contrary to custom to discuss the Opening Address, but he felt certain that it would be attentively read and considered when published in the "Transactions."

Probably many of the Members had envied The President the pleasant duty which he had performed that evening of presenting a testimonial to Mr. Penfold, the Honorary Secretary, who, he trusted, would live long to enjoy the esteem he had earned, and to see the Institution advance on the path of prosperity.

Mr. J. Shaw (Fellow) having seconded the vote of thanks, which was put to the Meeting and carried unanimously.

The President, after acknowledging the vote of thanks, expressed a hope that a large number of Members would attend the next Meeting, which had been specially set apart

by the Council for a discussion on the Ordnance Maps, and he trusted that many of the Members would come prepared with suggestions for making these Maps as useful as possible to the public.

The Meeting then adjourned.

PAPER 106.
No. 188.

THE ORDNANCE SURVEY OF THE UNITED KINGDOM.

PAPER BY

EDWARD RYDE (PRESIDENT).

Read at the Ordinary General Meeting of THE SURVEYORS' INSTITUTION, *Monday, 4th December*, 1882.

THE PRESIDENT IN THE CHAIR.

THIS survey was commenced in 1791, and is to be completed, it is hoped and promised, in 1890, so that as a work it will have occupied a period of exactly one hundred years. The survey was partially started by Major-General WILLIAM ROY in 1784, but after a little while it was suspended, and was not really commenced until 1791, when it was carried on by Lieut.-Colonel EDWARD WILLIAMS and Captain MUDGE of the Royal Artillery. At first the maps were plotted to a scale of 2 inches to a mile, and published on a scale of 1 inch to a mile. This was continued for 50 years, during which time the whole of the counties of England south of Lancashire and Yorkshire, and the whole of Wales, were surveyed, plotted, and published upon that scale at a cost of £750,000.

The principal triangulation on which the earlier survey in the south of England was based was designed partly for astronomical purposes and partly for military purposes. The publication of parts of this military map, on a scale of 1 inch to a mile, created a desire among the public to possess better maps than had formerly existed, and one singular circumstance has to be noted in connection with this desire. During the great war, in the early part of the

present century, there was a time when the making of the military map was suspended altogether, and after the general peace its continuance became a question of doubt, and, chiefly from motives of public economy, its progress was exceedingly slow. Under these circumstances the landowners of Lincolnshire and Rutlandshire proposed to the Government to proceed with the map of their district out of its regular turn, upon condition of their becoming subscribers for a certain number of copies. These gentlemen wished for the map partly for their use in hunting, and partly for use in the drainage of the fens. Singular to relate, these two counties are two out of only four of the eastern counties in which the 25-inch survey has not even yet been commenced.

By a Treasury Minute, dated the 1st of October, 1840, my Lords, having been in correspondence with the then Master-General (the Duke of WELLINGTON) and Board of Ordnance regarding the completion of the Ordnance Survey of England, and its extension to Scotland, and having received a number of memorials from public bodies—particularly the Highland and Agricultural Society of Scotland, the Geological and Polytechnic Society of the West Riding of Yorkshire, the Geological Society, and the Literary and Philosophical Society of Manchester,—and having been advised by Colonel COLLEY of the Royal Engineers, who was the then Director-General of the Survey, and being satisfied that the scale on which the English Survey had hitherto been conducted, a scale fixed principally with a view to military considerations before a demand had arisen for a national survey which should be permanently useful in aiding the improvement of the country by serving as a basis and guide for the formation of railroads, canals, and other public works, and promoting in various other ways the progress of science and statistical knowledge, and being

of opinion that if the nation incurred the cost of the survey, that survey ought to be of a kind most generally useful, had no hesitation in giving their consent to the remainder of England and the whole of Scotland being surveyed on the Irish scale of 6 inches to the mile. They also expressed themselves fortunate in having their opinion on so important a subject confirmed by the concurrence of so high an authority as that of his Grace the Duke of WELLINGTON.

The survey of Ireland was commenced in 1824, and was carried on under the provisions of the Act 4th of Geo. IV., chap. 99, which was expressly passed for the purposes of defining the principal object of the survey, of prescribing a legal mode for ascertaining the boundaries, granting of surveyors powers to enter lands, and preventing the removal of the objects used. It was completed about the year 1840, at a total cost of £820,000. The whole country, extending to an area of 32,813 square miles, was surveyed, and the plans plotted and published on a scale of 6 inches to a mile. There was also a reduced map engraved and published on a scale of 1 inch to a mile. Plans of towns were surveyed and published on much larger scales, varying from 12 inches to 10 feet to a mile.

It was not originally intended to publish the survey on the 6-inch scale. The engraving of the map upon that scale appears to have resulted from Mr. GRIFFITH having required four copies of it for valuation purposes, and it was found that it would be as cheap to engrave the map as to make that number of copies.

In 1841 the English and Scotch Survey on the 6-inch scale, authorized by the Treasury minute of October 1st, 1840, was commenced, and the counties of Lancashire and Yorkshire were surveyed and plotted and published upon that scale. Plans of these counties were also published on the 1-inch scale.

In 1851 a Committee of the House of Commons, of which Mr. CHARTERIS was Chairman, was appointed to enquire into and report upon the state of the Ordnance Survey of Scotland and on the works which would be required for its completion. It was estimated that at the then rate of progress the survey of Scotland would occupy another 50 years. It may be noted that that survey has just been completed, and, therefore, it has actually occupied a period of 30 years. The Committee in their Report recommended the abandonment of the 6-inch scale as not being of sufficient public utility to justify the large expenditure of public money which it required, and as being inapplicable to two-thirds of Scotland, and they urged upon Government the speedy completion of a 1-inch map, shaded and engraved like the 1-inch map of England.

On the 16th of December, 1851, a Treasury minute was issued directing that the survey of those counties in England and Scotland which had been begun and partly published on the scale of 6 inches to the mile should be completed on the same scale, but that the survey of other counties should not be commenced until the whole subject had received more full consideration.

On the 6th of July, 1854, a Departmental Committee, consisting of Sir JOHN BURGOYNE, Mr. WILLIAM BLAMIRE, and Mr. JAMES M. RENDEL, Civil Engineer, was appointed by the Lords of the Treasury, by a letter dated the 13th of June of that year, for the purpose of considering the evidence, which the replies to the circular letter from the Treasury, dated the 16th January, 1854, contained, in reference to the question between scales of 24 inches to the mile, $26\frac{2}{3}$ inches to the mile, and $\frac{1}{2500}$ of the lineal measurement of the ground to be mapped, which had severally been proposed, for laying down the results of the Ordnance Survey of the rural districts. This Committee reported

that the weight of evidence was decidedly in favour of the scale of $\frac{1}{2500}$ part of the lineal measure of the ground to be mapped. Under these circumstances it was decided by a Treasury minute, dated the 15th July, 1854, that the surveys of Ayrshire and Dumfriesshire, in Scotland, should be laid down and drawn on that scale, but the adoption of the large scale as a general measure was not at that time finally assented to. Nevertheless, the remaining counties of England—namely, Cumberland, Durham, Westmoreland, and Northumberland,—and the Isle of Man, were surveyed, and maps upon this scale of 25 inches to a mile were made and published. These maps were reduced to scales of 6 inches and 1 inch to the mile, and the reduced maps were also published.

When the whole of England had been surveyed and maps had been made, partly on the 1-inch scale only, partly on the two scales of 6 inches and 1 inch—namely, in the counties of Lancashire and Yorkshire,—and partly on the three scales of 25 inches, 6 inches, and 1 inch—namely, in the four northern counties,—it was deemed advisable to resurvey the whole of the south of England and Wales in which no maps larger than those on a scale of 1 inch to the mile existed, and that survey is now in progress. As fast as the survey is completed maps on the 25-inch and 6-inch scales are published. The English counties in which this resurvey has not yet been commenced are Lincolnshire, Rutlandshire, Cambridgeshire, Huntingdonshire, Warwickshire, Dorsetshire, and Herefordshire. In Wales no counties have been surveyed except Flintshire, Denbighshire, Glamorganshire, and very small parts of Brecknockshire, Carmarthenshire, and Pembrokeshire.

In determining the order in which the remaining counties are to be resurveyed, preference is given to the mineral districts, the metropolitan counties, and those parts

of the country of which surveys are required for military purposes.

Hitherto the 6-inch maps have been produced by reducing by photography the 25-inch maps, and the reduction has been engraved on copper. That process has been found to be both tedious and costly, and has resulted in considerable delay in the publication of the 6-inch maps. To remedy this delay and to cheapen the process, the following system has been adopted after successful trial. A slight alteration has been made in the mode of drawing the manuscript 25-inch map, which enables a photozincograph to be made from it direct and laid down on a zinc plate, from which impressions can at once be printed. It is alleged of this process that greater accuracy is ensured than is attained by engraving, and that all possibility of error in the reduction from one scale to the other is eliminated. Surveyors will doubtless regret the loss of the engraved copies of the 6-inch map, and will look forward with some trepidation lest after a time the zinc plates should become blurred, and the details of the map thicker and less distinct than they should be. Nevertheless, they will hail with satisfaction the prospect of the more speedy publication. The 1-inch map is reduced from the 6-inch map, and is engraved on copper.

A new series of the 1-inch map of England is in course of preparation. This new series is published in two forms, one with contours only, the other with hill features. The map of England will be complete in 360 sheets, of which 110 have been published with contours and 74 with hills.

To sum up the whole matter, when the survey has been completed—which, as already mentioned, is hoped will be the case in the year 1890,—there will exist:—

(1.) A perfect map of the United Kingdom on a scale of 1 inch to the mile.

(2.) A map of the United Kingdom on a scale of 6 inches to a mile.

(3.) A map of each county in England and Wales, and of the cultivated districts of Scotland, on a scale of 25 inches to a mile.

(4.) Maps of a large number of towns on scales varying from 12 inches to 10 feet to a mile.

The whole of these maps will be of great service and value for various purposes, and the change which has recently been made in the method of producing the 6-inch maps for publication has rendered the present time an opportune one for the expression of the opinions of the Members of this Institution with reference to any practical defects or possible improvements in the several maps, and the Director-General of the Survey has been good enough to intimate that any expression of opinion from this Institution will receive his most careful consideration. It is proposed, therefore, to discuss the several maps in connection with the uses to which they may be applied, with a view to obtain from the Members of the Institution suggestions and opinions thereon.

For general purposes, the map of the United Kingdom on a scale of 1 inch to a mile must, on the whole, afford the greatest amount of useful advantage to the public, and such a map is best for all general purposes in connection with roads to and from neighbouring towns, and for what may be described as general domestic purposes.

In a leading article in the *Times* newspaper, as recently as the 27th ultimo, complaints were made about the advantage possessed by Scotland over parts of England. In this *Times* article it is stated "that an Englishman may change his residence half a dozen times, and never be able to obtain at any price a map of his neighbourhood which is not worse than useless, being grossly misleading. The new comer has

made it his first business to learn how he is to get at his neighbours. To be sure of being well posted up, he goes to one of the London offices for the sale of Ordnance Maps. He buys the very last, and finds that he has wasted his money on a worthless, antiquarian curiosity. He flatters himself, upon the first sight of the map, that the roads radiate very nicely and obligingly in all directions, bringing sufficient neighbours within easy calling distance. There are the roads quite plain on the paper. He shortly finds that most of them have a purely traditional, hardly traceable, existence. The ratepayers have gone on the plan of spending the rates on the roads they want and letting the others go down. They want roads to their farms and to the market towns within reach. They have no occasion for roads from village to village, for they meet one another not in their houses, but at the market table." This complaint would appear at first sight to be likely to be removed as soon as the re-issue of the 1-inch Ordnance Map has been extended to the whole of England. It would be impossible to distinguish upon any published plan the difference between roads in a good state of repair and roads in a bad state, but there are matters of detail upon these re-issued maps which are capable of improvement. It is, doubtless, impossible to avoid exaggeration of scale in delineating on such small maps the roads of the district; they must of course be drawn wider than strict accuracy with regard to the scale would justify, but there is no reason why a mere public footpath across the fields should not be distinguished from the public highways. To go no further than my own land at Woking for an illustration, I can point out several roads delineated upon the map which look exactly like carriage highways, which are, in fact, mere tracks across the land, which are ploughed up and obliterated every time the field is cultivated; and the suggestion with reference to this point

would be that mere footpaths or bridle roads should be denoted by some conventional method of dotting them across the fields, so that their identification as footpaths and bridle ways might be at once possible.

It might also be desirable to publish this 1-inch map without contours and without hill-sketching, but with all parish boundaries clearly defined thereon. The contour line is sometimes a confusing feature to a person not very familiar with the use of maps, and the hill-sketching is rather perplexing.

For laying out railways, canals, roads, &c., the 1-inch map will always present advantages for determining the first general direction of a line, over maps of a larger scale. When it becomes necessary to deal with details the larger maps will, of course, be most useful.

The county maps, on a scale of 6 inches to a mile, will, next to the 1-inch maps, be those which will probably be generally in demand. For all public questions connected with the administration of county business, the division of the county into highway districts and general parochial purposes, as well as for key maps for estate purposes, no scale could possibly be more convenient than that upon which these maps are published. It is sufficiently large for all general purposes, and not too small for any such purpose. It is scarcely possible to suggest any improvement upon the form in which these maps are published, except this, that the more clear and distinct they are, and the less they are confused by unnecessary detail, the better. It has hitherto been the practice to insert in these maps hedge-row timber, and under the new system of producing them, it would appear to be a great convenience and a saving of expense, if this hedge-row timber could be left out. This is one point upon which the opinion of this Institution is specially desired. Specimen maps have been obtained from the

Director-General, for the inspection of the Members, with and without hedge-row timber. There can be very little practical advantage in showing such details, as in no instance is it pretended that the exact position of the trees is denoted upon the plan. It would be impossible to do more than roughly sketch in trees in hedge-rows in which such trees existed at the time of the making of the survey. But nothing is more uncertain than the continuance of timber in any given hedge-row. It often happens that the new owner of an estate fells a lot of timber which his predecessor in title desired to retain. Moreover, improvements in agriculture frequently require the removal of timber; and for all general purposes such delineation upon the plan has no value, while for estate purposes, if it is required, it can easily be supplied, and supplied with more or less accuracy, according to the requirements of the case.

The parish plans on a scale of 25 inches to the mile, or, speaking with strict accuracy, on a scale which is $\frac{1}{2500}$th part of the admeasurement of the land delineated upon the plan, are the maps which will always be resorted to for all detail questions relating to the transfer, management, and improvement of landed property, and for all purposes connected with parochial assessment and taxation; and it is very much to be regretted that these maps, which are not so useful for military purposes as those on a small scale, have nevertheless been constructed upon principles which were decided upon and adopted for the original purpose of a military map. The lines which denote the fences between fields are in all cases the centre of the fence, whatever it may happen to be. In the case of a bank and ditch, it is the centre of the bank which is drawn upon the map, a line which in no case, from a Surveyor's point of view, denotes the boundary of a field, and which, with very few exceptions, never forms the boundary of an estate where the two fields

which are divided by a bank and ditch belong to different owners. Of necessity the whole of the bank and ditch must belong to one or other of the owners. In practice, it is usual, on the sale of land requiring a fence to be made, to make it a condition that the owner of one piece of ground should make the fence. In that case he would have, of necessity, to dig the ditch and make the bank upon his own land, so that the ditch must always belong to the field which is situated on the opposite side of the bank to which the ditch is. In some districts, where the ditches and banks are large, this inaccuracy upon the plan is of material consequence, and wherever an estate is bounded by a public road it always throws a portion of the land which is private property into the road over which the public have rights, and it has the effect of making the roads upon the maps wider than they are upon the ground. It is said, in reply to this objection, that all roads are necessarily exaggerated, and that the scale is too small to be of any material consequence. That, however, is not always the case, nor is it quite correct to say that the scale is too small to render it impossible to delineate a true line instead of an incorrect one.

It is suggested that it is not too late yet to render these parish maps more available and useful for property and parochial purposes. There is in every neighbourhood a local Surveyor who for a very small price per acre would delineate upon the Ordnance Maps of each parish, by some conventional line, the actual boundary of the field, leaving the military or engineering boundary as it now is. In fact, another line might be delineated upon the plan denoting the real boundary of each enclosure. No objection could be taken to this work being done by contract and by local men; all that would be necessary would be to obtain the width of the half-bank and the ditch, and to delineate it upon the map upon its proper side of the published line. A

separate issue of maps with this additional information upon them could be made and a remunerative extra charge would be submitted to by those to whom the addition would be useful.

Another feature of these maps is to distinguish between brick and stone-built buildings and timber-built buildings; the former being coloured pink, the latter grey or neutral tint. It is suggested that this distinction is quite useless for practical purposes. A brick building may be very old and dilapidated and quite unfit for its purpose, and a timber building may be very useful and convenient for the purpose for which it is erected. In practice, a map would not be consulted for the purpose of ascertaining such a detail. Nothing short of an inspection of the building would be resorted to, but it would materially increase the value of the map, both for estate purposes and for general purposes, were means adopted for distinguishing thereon dwelling-houses from other buildings.

It is suggested that this could be readily accomplished by a different use of the two colours pink and grey. The pink might denote all dwelling-houses, and the grey all other buildings. If it is objected that there are so many maps already published that any change of this character is unadvisable, and, if that objection should prevail, it is suggested that the difficulty might be overcome by the maps being issued without colour at all, so that the person using them might colour them according to his own requirements. This suggestion with reference to the issue of uncoloured maps is one to which special attention is directed, as it would be desirable in most cases in which the map is wanted in practice to have an uncoloured map, which would be capable of being coloured in any form whereby the purpose for which it is to be used might be best served.

The expediency of inserting upon these maps hedge-row timber has much less force than it had in the case of the 6-inch maps. In no case would a person resort to a 25-inch map for the purpose of ascertaining whether a neighbourhood was studded with timber or not, and the objection that the trees do not occupy their real position on the map is greater in the case of a large scale than a small scale. It is submitted that these maps would be clearer and more useful for practical purposes without the hedge-row timber than with. Neither in the case of the 6-inch nor of the 25-inch is it desirable to leave out the trees in natural woods and plantations, because in these situations their delineation upon the map is useful.

The area books, which are published in connection with the parish maps, are capable of great improvement and might be made more useful at very small expense. These books contain at present the number upon the plan, the state of cultivation, and the area of the several plots of land. The column respecting the state of cultivation is the least useful of all, assuming that it is correctly filled up. But, reverting to my own parish of Woking again as an illustration, the whole of the old meadow land in that parish is described as arable, and there is no grass land described at all, except in those pieces of rough land which it is almost impossible to describe either as wood or grass. It is believed to be the intention of the Director-General to omit this column from the area books, and in coming to that decision it is submitted that he has acted wisely. It would be an improvement in the area column if, in the case of villages and hamlets, a little attention was paid to the obvious boundaries of property or pieces of property. For instance, there could be no difficulty in giving one separate area for a farm homestead, including the farm-house and garden and the yard and buildings. It sometimes happens that the quantity of

the house and garden, or of the yard of a farm homestead is scaled by itself and carried as a separate quantity into the area book, and the remainder of the homestead is included with the houses and gardens in the village. This suggestion could be acted on without local enquiry, as the fences which constitute boundaries are generally obvious, and in the very few cases in which they are not, the object would be met by giving a separate area to any doubtful piece of property.

In the case of town maps there is little to be remarked upon. The extent of detail shown upon the map must always be in proportion to the size of the scale, and perhaps it is not too much to say that the more of the physical features of the town which can be delineated upon the map the greater is the value of the map, and the best map for town purposes is that which shows every physical feature.

One general observation applies to the entire series of published maps, namely, that in every case where the boundary of a parish or county does not cover the whole of a sheet, the portions of the adjoining parishes or counties should always be added, so as to fill up the sheet at its square boundary line. Where this has not been observed, it is very difficult to join up the plans of two counties or two parishes, so as to complete the whole of any given district or estate.

It is, however, a very important national question whether, having a national survey of this character, it is not advisable to extend its national usefulness a little further by placing in the area books the names of the reputed owners of each piece of property. This could be done with very close approximation to accuracy, and at a very small cost, there being always a well-informed local solicitor who would from time to time, for small remuneration, supply this information.

The last suggestion which it is deemed expedient to make in this Paper is this, that, whether we have in view the 1-inch maps of the United Kingdom; the 6-inch maps of the counties, or the 25-inch maps of the parishes, it is extremely desirable that they should be from time to time examined and corrected so as to keep pace with the alterations and improvements which are ever going on. No doubt these re-surveys and examinations would be best made by the staff originally engaged upon the construction of the maps, and, therefore, it is not suggested that in this matter local aid should be procured; but it is suggested that this work might be almost self-remunerating from the fact that, if it were publicly known that alterations in the maps were from time to time made, no practical use would be made of an old Ordnance Map; but every fresh use would induce the person using the map to obtain the last published copy.

If this provision can be made to keep pace with the general alterations in the physical features of the country, the Surveyors of the next generation may boast that they are in possession of national maps which will bear comparison with any of the cadastral surveys of continental nations, and of a work which reflects great credit upon all the parties who have been concerned in it.

Mr. D. Watney (Fellow) had much pleasure in proposing a vote of thanks to Mr. Ryde for his able Introductory Paper, which must have been listened to with interest by an assembly composed, as that Meeting was, of practical Surveyors.

He was not altogether prepared to agree with The President that, for general purposes, the 1-inch map would be of the greatest advantage to the public. That remark was somewhat qualified in a subsequent passage of

the Paper, but he thought that it would be pretty generally agreed that for all ordinary business purposes the 6-inch and 25-inch maps were of much greater utility, and had become almost indispensable. He might, perhaps, be permitted to read a paragraph from a little work on The Ordnance Survey, in which the uses of these maps were very fully set forth.

"The public purposes which a national map should "subserve, apart from those which are purely geodetical or "geographical, are too numerous and extensive for us to "discuss here in detail. Amongst the chief of them are "the following:—

1. "The valuation of property for the equitable adjust- "ment of taxation and assessment."
2. "The sale and transfer of land, and the registration "of title."
3. "Railway and other civil engineering works, such as "the construction of roads and canals."
4. "Large sanitary and drainage schemes."
5. "Military engineering works."
6. "Hydrographical, geological, and mineral surveys."
7. "The reclamation and improvement of waste lands, "and of land from the sea."
8. "Transactions affecting land, as between landlord "and tenant."
9. "Statistical surveys.
10. "The setting out and adjustment of parochial and "other boundaries, and so forth."

"It has been amply proved by the best evidence on the "subject that, in this country, a map with levels on a "scale of something like 25 inches to a mile, is the "smallest which can properly fulfil all these requirements."

It was hardly necessary to say that for carrying out the objects enumerated in that paragraph, the 25-inch maps

were absolutely essential. One very useful and well-known feature of the 25-inch map was that the square inch represented as nearly as possible a square acre.* He entirely concurred with most of THE PRESIDENT's remarks as to the points in respect of which the maps could be improved. The hedge-row timber was no inconvenience on the 6-inch map, but on the 25-inch map the trees were apparently put on by machine, and in such a way as often to obliterate and obscure the lines. It was, he thought, very important that the proper boundaries of the fields should be shown upon the maps, and this point was one which should be strongly pressed upon the notice of the Director-General. The boundary adopted by the Ordnance Survey was not any actual boundary of property, but merely represented the physical divisions between the enclosures. It was obvious that an Ordnance Map could never really be finished, and it would not be difficult to gradually substitute the real for the present physical boundaries in the course of revision. He did not agree with THE PRESIDENT that the alterations should be given into the hands of local Surveyors. He remembered what an immense amount of bad work was done by local Surveyors in the great railway years from 1845 to 1850, and was of opinion that it would be very much better to leave the work of revision and correction in the hands of the Ordnance Survey Department.

The difference between the geographical area shown on these maps and the actual area, in mountainous countries, was a point deserving of attention. Some interesting statistics given recently in *The Field* newspaper went to show that a farm 6 miles long and 3 miles broad, according to the Ordnance Map, was, if actually measured, 8 miles long and 3½ miles broad. Such a difference was startling, because where, according to the Ordnance Survey, the

* The acre in fact corresponds to the square of 1.0018.

geographical area was 18 square miles, the actual area was 30 square miles.

Mr. A. M. Dunlop (Fellow), after seconding the vote of thanks, remarked that many of the points raised in the able Paper prepared by The President required some consideration before an opinion could be passed upon them. Among them was the question whether the plans should show the *actual* boundaries, banks, and ditches,—instead of the lines now depicted.

Some remarks had been made by Mr. Watney with reference to the bad quality of some of the work done 40 or 50 years ago in connection with the Tithe and Railway Surveys; but it must be remembered that the supply of Surveyors in those days was probably very unequal to the demand, and a great many maps, ostensibly produced in 1845, were possibly made in 1745. The Tithe Office, however, did not pass any of them as first-class maps unless produced from actual survey, and unless they stood the Commissioners' tests. It was hardly just, therefore, to condemn the Tithe Maps, as a whole, without some qualification. He trusted that the discussion would elicit many useful and practical suggestions, which the Institution was well qualified to offer.

Mr. John Clutton (Past-President) was of opinion that the hedge-row timber should be omitted from the 6-inch map, even if it was thought desirable to show it on the larger map; but, speaking as a land-agent, he thought it would be better left out in both cases, for even in the 25-inch map it tended to confuse the detail, and made it difficult to use for working purposes.

He was afraid the survey had gone too far to ask for an

alteration in the boundaries. No doubt it would have been better for estate purposes if the ditches, which were the true boundaries of the properties, could have been shown, instead of the banks; but it must be remembered that the objects of an Ordnance Survey were military as well as social.

He thought it would be better to omit all colour from the plans, as it was frequently put on wrongly, and leave persons to colour them in any way that might appear best for their particular purposes.

It was too much to ask that the ownerships should be shown. As a matter of fact, the maps did not show in some cases the whole of the land in the parish. For example, the detached portion of the parish of Buckland, in Surrey, where he was born, happened to be an old manorial estate, and the whole of the surrounding fences belonged to the estate. Measuring by the Ordnance Map, the area of the estate would be reduced by many acres. That was, he admitted, an exceptional instance, and in nine cases out of ten it would be a matter of give and take, and the differences would about balance each other.

He thought that nothing but hard roads should be shown. The present practice of showing every road and by-path was very misleading, and it was of frequent occurrence to find oneself stopped in attempting to drive across country, what appeared to be roads turning out to be no roads at all, or private roads or tracks only.

Mr. R. C. Driver (Fellow) thought that all colouring of every sort and kind should be left out, as it interfered with other colouring for special estate purposes. The buildings should be line-shaded, and as to the ponds, a few waving lines would show these. If the maps could show the banks and ditch between one field and another, it would

be much better than the arbitrary lines, as now defined, as the centre of each fence. Persons could then take the area as they pleased, and the maps would show more distinctly the proper features of the ground. It was not too late to amend the survey in this respect, and the alterations could be gradually made, as suggested, in the course of the revision. It would be far better to omit the footpaths altogether than to show them by double lines, as now done. Many of these paths were only occupation roads, and not public paths, and thus were misleading. His experience was that hedge-row trees were put on very correctly, but he thought, on the whole, that they would be better omitted, even on the 25-in. map, but, of course, retaining the woods and coppices.

To attempt to define the ownerships on the map would, he thought, be a great mistake. Ownership was a matter of title. Then, the changes of ownership were so frequent and so numerous, that no map could keep pace with them. All that was wanted by the public was a numerical reference. The quantities in acres and decimals should, he thought, be retained. They were far better than the ordinary computation by acres, roods, and perches. He had recently offered for sale a large estate of 8,500 acres, in the North of England, belonging to the Admiralty, and proposed to give the areas in acres, roods, and perches, but the adjoining owners and lessees, and others interested in the property, asked that the decimal system should be adopted, as it corresponded with the Ordnance Survey.

Mr. E. P. Squarey (Vice-President) concurred with Mr. Clutton's and Mr. Driver's view, that it would be wise to omit the hedge-row timber. He did not think that the reference book should contain the names of the owners. He dissented from Mr. Driver's view, that ponds should be

uncoloured. If left uncoloured they might be mistaken for double hedge-rows.

It was only fair to point out some of the reasons for the adoption of the centre of the hedge as the boundary on these maps. To have adopted any other boundary would have involved enquiry as to the ownership of the fence of every field through which the survey extended; and it was quite clear, that although in many districts there was only one ditch to the enclosures, plainly indicating the ownership, that there were a great number of instances in which there were two ditches, making it absolutely impossible to determine whether the boundary was on one side or the other, more especially in Dorsetshire and in the Midland counties.

The Ordnance Department might well shrink from imposing upon themselves any such task as defining the real boundaries of enclosures.

Mr. C. R. Cheffins (Fellow) had found the 25-inch map inaccurate as regards the parish boundaries, and had often experienced some difficulty in tracing out these boundaries from it. Only last Session he found a field which was really situated in two parishes, shown on the Ordnance Map in one only, the boundary being delineated as following a stream which had probably been cut within the last ten years. The inaccuracy was nearly the means of leading him into serious error, and might have resulted most disastrously before the Standing Orders Committee.

He thought the Ordnance Department might very well undertake to show the ownerships, and quite agreed with what had fallen from various speakers as to the way in which the boundaries of fields should be delineated on the maps. If the ditch could not be shown, some indication might at any rate be given of the side on which it

was situated,—say, by means of a T, or in some similar way.

If, as Mr. SQUAREY had pointed out might be the case, there were two ditches, one on each side of the fence, they could both be shown on the Ordnance Map in the manner above indicated. He did not attach much importance to the trees being represented, and would be inclined to omit all colouring except for water and streams, where it was very useful. Buildings should, he thought, be hatched. A considerable saving in the cost of production, and consequently in the price to the purchaser, would result from the omission of the colouring.

Mr. W. EVE (Fellow) had used a great many Ordnance Maps, but could not say that, as a rule, he had found the parish boundaries inaccurately shown on them, although in one case he had found a field in no parish at all. Great care was taken to get the boundaries correct, and sketch plans were deposited for inspection in the various localities; but, if people would not take a little trouble to give information, he did not see how the Survey authorities could ascertain it.

He would prefer to see the trees retained (his own experience was that they were very carefully delineated), and he hoped that the colouring of houses and buildings would be continued. He agreed that it would be far better if the houses were coloured pink and all other buildings neutral tint; but to leave them out would give the plans a blank and unsightly appearance, and it was desirable they should look as nice as possible.

The system of showing the roads was open to improvement. It was often impossible to tell whether the dotted lines were intended to show roads or footpaths. There ought to be some way of distinguishing them, and he

suggested that it might be done by means of some symbol such as scattered groups of dots.

It had been observed that it was too late to change the boundary, and so Mr. CHEFFINS' suggestion of putting a mark or symbol on the side of the hedge where the ditch was, was a very good one, but he should prefer to have the correct boundary delineated. In some cases there were great difficulties in the way of showing the true boundary: for instance, the boundary of a field sometimes changed from the edge of the ditch to the hedge which ran beside it. On the Ordnance sheet the boundary would be shown as a continuous line, whereas, as a matter of fact, it possibly crooked back eight or nine feet to the edge of the ditch.

With reference to the remarks of a previous speaker he might observe that, however hilly a field might be, crops still grew about vertically.

The sheets should all, he thought, be published as full sheets, although, he thought there was some ground for dissatisfaction with the extra price (some 30 per cent.) put upon the sheets by the agents through whom they were purchased by the public. Acts of Parliament could be purchased at the Queen's printers at their nominal cost price, and he saw no reason why the same should not hold good of these maps. He was not complaining of the price of the sheets, but it was rather absurd, after the Government had spent a large amount of money on their production, that some half-dozen publishers should be able to pocket some 30 per cent. additional for the trouble of sending across the street to accommodate one with the sheet required. That was a point to which the attention of the authorities should be directed, as the sale of these maps was increasing very rapidly. It was not a question for them to decide whether the price should be reduced (the maps were marvellously cheap), but whether, as ratepayers, a

great portion of the profit should go, not into the pocket of the Government, but into those of a few tradesmen.

Mr. W. Sturge (Past-President) said that he would like to make a few remarks, as an old Chain-Surveyor, who began at seventeen years of age, and who had surveyed some thousands of acres before he was twenty. He observed that the Ordnance Surveyors had taken the centre of the hedge as the boundary line between separate enclosures of land. That might be all very well for military purposes, but was not correct for parochial and estate purposes. In the counties in which he was most accustomed to survey in his youth there was no difficulty in ascertaining what the proper boundary was. In every case the outer edge of the ditch was the boundary between one field and another, and the practice always was to show to which side the fence belonged, by a scroll along the line, or by a T. That was the case in the Midland Counties, and in East Somersetshire and in Gloucestershire; but when they got further west a different state of things prevailed. In West Somerset, Devon, and Cornwall, there was no such thing as a fence with one ditch. In every case the banks were much larger in those counties, and had been made by excavating a ditch on both sides; and even the practised eye of a Surveyor could not tell, without enquiry, which side the fence belonged. He thought, in those cases, the outer edge of the ditch should be shown on both sides. With regard to colouring, his practice had been to colour the dwelling-houses pink, and all the outbuildings neutral tint. He thought no improvement could be made upon that practice. As to hedge-row timber, on the whole he was inclined to think it was better to omit it, but to show woods, plantations, orchards, and clumps of trees. He thought it was important to show ponds and streams of water, so necessary

was a good supply of water for agricultural purposes. The question of heights had not been alluded to. The heights above the main sea level at Liverpool were shown in a good many places on the maps. They might with advantage be shown in a great many more places, so that the general features of the country as to hill and dale might be seen. The more heights that were shown the better, and the more useful the map would be, especially for the purpose of indicating a general scheme of drainage. One speaker had alluded to the difference of measurement between a hilly surface and a flat surface. They all knew that, for agricultural purposes, the horizontal surface was the correct one. On the 1-inch maps it was a distinctive feature to show the hills by shading, but this could not be done on maps on the larger scales.

Mr. A. Garrard (Associate) said, with reference to a remark of Mr. Clutton's, that he had himself found the roads, as shown on the 1-inch map, very misleading. This autumn, in Oxfordshire, he had traversed about a mile of road which looked like a high road on the map, but he found that it led merely to a farmyard, and it was only by the courtesy of the occupier that he was able to get through on to another high road. No carriage could possibly have passed along the road in question, although there was nothing to distinguish this on the map from the high road. No doubt it was desirable to show everything that existed on the ground, but it was also equally desirable that anything misleading should be omitted, and it would be better to omit all private roads from the map if they could not be shown in some distinct manner from the public roads, as they materially detracted from the usefulness of the map to all persons travelling in a district with which they were not familiar.

Mr. V. Buckland (Fellow) said, with reference to the question of the boundaries,—whether the hedge or the ditch should be shown—that in new enclosures it was always understood that the fence carried the ditch, but in old enclosures this was not always the case, and there was no more prolific source of litigation than the question of hedge-row boundaries. The Ordnance Department would have taken upon themselves the settlement of questions of title, if they had undertaken to define the boundaries of estates.

He agreed with Mr. Sturge that it was desirable to have more levels, on the 25-inch map especially, and even on the 6-inch map. He also suggested that it was important that more contour lines should be shown. He did not agree with Mr. Driver as to the colouring. It was desirable that the water and ponds should be coloured. Let all the buildings be hatched indiscriminately, whether houses or only outbuildings. Anything further was unnecessary, and, if wanted, could be easily supplied.

Mr. G. H. Leane (Fellow) contended that the object to be promoted was the facilitating the completion of the 25-inch map, rather than the suggestion of additional work which would only serve to retard its progress. On the 1-inch map single dotted lines should be employed to indicate by-roads, instead of double dotted lines as at present. He had himself found the double lines very misleading. He was in favour of omitting the hedge-row timber altogether from the 6-inch map. It caused great confusion where any alteration was required. Ordnance Maps, excellent as they were, did not remain correct for ever: many alterations took place, and he found the trees troublesome things to erase. He could not agree with The President that the Ordnance authorities were wrong in showing the centre of the

fences, for, had they taken upon themselves to show the true boundary, their task would have been a difficult one to accomplish. It was all very well in new enclosures, for there the true boundary was known; but in old ones the case was very different. In many counties the width from the centre of the fence to the edge of the ditch, the true boundary was four feet, but it was not so in all cases. He knew instances where the boundary was six, eight, or ten feet from the fence, and sometimes fifteen or twenty feet. If the fences were omitted in many of these cases and the true boundaries shown, the result would be confusion, and the plan would bear no resemblance to the ground, and a stranger would have to make enquiries as to the boundary of the property before he could measure for himself. The scale of twenty-five inches to the mile was not any too small to admit of roads being shown without exaggeration in width.

With regard to the colouring of buildings, he might call attention to a note in the catalogue of the Ordnance Survey Plans, to the effect that all the plans could be obtained without any colouring, so that those who wished to have them uncoloured might do so upon application. Houses should be shown in red and outbuildings in another colour, and a distinction might be made even if the present system of colouring was adhered to, to indicate a dwelling-house. Still it was not worth while to heap upon the Department more work than they had at present, when they were so anxious to get their 25-inch map completed. With this end in view, he would be glad to see the superfluous work, such as garden walks, ornamental shrubberies, and flower-beds, omitted. All trees should be omitted, except in woods and plantations, which should be indicated in as light a character as possible, because they were not always permanent, and it was often necessary to erase them.

He agreed with THE PRESIDENT, that with regard to the book of reference it would be well to leave out the description column; it would be a difficult matter for the Ordnance Department to take upon themselves to show the owners' names, especially when many of the maps were not issued to the public until five years after the surveys were made, and there might be many changes of ownership during that time. In his own practice, he had found the parish boundaries very correctly shown. A great deal of trouble has been taken by the Department to get them accurate, and it was the fault of the parties themselves if they were not so. There were a great many Bench marks in various parts of the country, but he could not get at their heights. No work that he could get showed them all; and, although the officials at Southampton were very courteous, and did all they could to oblige those who applied for information, it would be a great advantage if engineers and others could avoid the necessity of referring to the Ordnance Office. A system had been adopted on the Continent of inserting in the walls of buildings castings for Bench marks, with plates screwed on the face figured with their values.

Mr. JOSIAH HUNT (Fellow) would not at that time of the evening trespass upon the time of the audience by commenting on the points already touched upon, but he might refer to the fact that, either from the shrinkage of the paper or from some other cause, the sheets did not join so accurately as could be desired. Sometimes the difference amounted to from one-third to half an inch in the sheets. That was a practical point to which the attention of the Survey Officials should be directed.

Mr. F. C. KETTLE (Associate) considered that it was very useful for estate purposes that hedge-row timber

should be shown. On an estate in Devonshire he was using the Tithe Map, and he had been put to considerable trouble in picking up trees to make a proper estate map. It would be obviously convenient for auction purposes to have the trees shown on the map.

One great advantage of retaining the line indicating the centre of the hedge or fence, instead of the proposed line showing the bottom of a bank or edge of the ditch or boundary between land of different owners, was, that it furnished a definite line upon which to fix points to measure from, whereas, a line on the map to which, in many cases, there would be nothing on the land to correspond, would make it very difficult to fix the position of objects, or even to find one's place on the ground.

He suggested that it would be an improvement if watercourses were depicted, say, with blue lines. It would be very useful if only the public roads were coloured and the private roads left uncoloured. No such inconvenience could then occur as had been referred to by Mr. Clutton and Mr. Garrard. He also thought that Bench marks should be more clearly defined, a reference being put under the mark stating where it was on the ground. Attention to these points would be of practical service.

Mr. R. W. P. Birch (Associate) hoped the Ordnance Department would take more pains with the parish boundaries. It very often happened that the parish boundary was shown on one side of an enclosure on one sheet and on the other side on the adjoining sheet belonging to the contiguous parish. Inaccuracies of this kind gave a good deal of trouble to engineers, and might be obviated by a little extra care. He hoped the Ordnance Map would continue to show the trees, as they helped the engineer to find his position on the ground. He advocated,

for the same reason, the colouring of the houses and ponds.

Mr. W. Weaver (Fellow) remarked that most of the suggestions which had been made implied additional expense, and would retard the completion of the survey. A suggestion which he would offer would tend in a contrary direction, especially with regard to the 5-foot plans, with which he had most to do. He would propose the omission of the details of back gardens, such as flower-beds, and gravel-walks, which only confused the plan and left the Surveyor no room to mark on it certain facts which he required. For example, the 5-foot map showed a number of serpentine gravel-walks formerly in his own garden, but his children had long ago pulled up the tiles, and he had had it all asphalted. This was no doubt the case elsewhere, and the labour and expense of showing such details was entirely thrown away. This was a suggestion in the direction of economy, without impairing the efficiency of the map.

Lieut.-Colonel G. A. Leach (Honorary Member) expected that one point of paramount importance would have been dwelt upon, which had escaped notice in the discussion, though a gentleman at the other end of the room alluded to it—the desirability of facilitating the publication of the maps in every possible way. And here he would like to pay a tribute to the energy and skill of the present Director-General of the Ordnance Survey Department. That gentleman would be able, he had not the least doubt, by the exercise of his remarkable administrative ability, to complete the survey of the whole of England by the year 1890. No country in the world would then possess such a survey as England. But he feared that many of the suggestions made that evening would, if carried out, tend to

indefinitely delay this desirable result. The Director-General had done him the honour to consult him upon various matters connected with the survey, and his advice had been to do everything that could possibly be done to hasten the completion of the survey. Most of those he was addressing were familiar with the exquisite maps of which the 6-inch was an engraved copy. More beautiful maps did not exist in the world; but when he was consulted on the matter some time ago, he recommended the adoption of the process recently instituted by General Cook, of producing the 6-inch map by means of photo-zincography from the larger maps, instead of engraving them as heretofore. He confessed that it went to his heart to hear the proposal to set the engraved map aside, but he felt that the engraving would delay their publication for five or six years,—an interval in which considerable alterations might take place in the face of the country. He therefore recommended that the process to which he had referred should be tried, and he had not the least doubt, from the specimens he had seen, that it would be a great success.

With regard to the suggestion that the names of owners should be inserted, they would remember, the Ordnance Surveyors, were, as a rule, men of the same class as the men of the engineers' corps, and if they were set to enquire as to the ownership of property, there would be all sorts of errors, and the public would be loud in their condemnation of the survey. The great value of the Ordnance Survey was that everybody had implicit confidence in its accuracy. He had heard no remark impugning its accuracy except from Mr. Cheffins, with regard to parish boundaries. Having been himself connected with the Ordnance Survey, he could testify to the care taken to ascertain the parish boundaries correctly. In his own office a number of men were employed in tracing estate maps; others were sent to

the localities to investigate the boundaries, and after their investigations were completed, a sketch was got out and sent to the parish for the criticism of everyone interested in the boundaries. In fact, every step was taken to secure accuracy. It had justly been remarked by Mr. Eve that, if people's attention were called to the maps, and they had every opportunity given them of expressing their opinion, it was rather hard upon the Survey to complain that nothing had been done to ensure accuracy, when, in point of fact, every possible step had been taken to secure it. Those who had practical experience knew there was very great doubt in many cases as to parish boundaries, and that it was often very difficult to define them.

It was a very difficult task indeed for the Ordnance Department to accomplish, and he was extremely surprised that it had been done so well. They had, however, nothing to do with the boundaries of property, and his experience and that of others went to prove that it would be utterly impracticable to show them on the Ordnance Maps. In some cases, the property boundary was from 2 ft., 3 ft., 4 ft., to 6 ft. away from the fence. Sometimes there was even as much as 20 ft., of what they called freeboard; and it often happened that the owner of the property on the side of the 15-ft. ditch had the right of grazing over that land, while the minerals belonged to somebody else. Who was to say whose property it was? Mr. Buckland justly remarked it would be impossible to show it on the Ordnance Map, and it was a duty which it was extremely improper to cast on the Ordnance Department. If everything tangible was given, the map could be adapted to individual requirements. Imagine someone (not a Surveyor) going over the ground with a map covered with lines representing not tangible objects, but undefined lines three, four, five, or six feet apart; the man would not know

where he was, and the map would be utterly useless to him. Again, it should be remembered that nothing less than 10 feet could be represented on the 25-inch scale.

He, for one, would not like to see hedge-row trees omitted, because the maps were public maps, and should be looked upon as records for generations to come, so that anybody consulting them in future times would know the exact character of the country at the period when they were made. No one used maps more than he did, and he had not found the presence of the trees inconvenient.

The question of revision, alluded to by THE PRESIDENT, was an important matter; but the first thing to be done was to get the map. The revision would require a force to carry it out all over the country exceeding the force employed in the survey, and he thought it would be agreed that it would be better left till afterwards.

He thought the colouring of houses desirable, and he might mention that any gentleman who wished to have the maps uncoloured had only to ask for them. With regard to the difficulty of putting the portions of sheets together, the idea originally started was that there should be a parish map, a county map, and a map of the whole country: the large-scale map for the parish, the 6-inch for the county, and the 1-inch for the whole country. He himself had drawn Sir HENRY JAMES's attention to the difficulty of fitting the portions of sheets, and the system had been changed, each sheet being now published as a full sheet.

It had been said that agents had been taking an excessive percentage, but he might observe that there had been established, and was now existing in London, opposite St. Martin's Church, an office for the sale of Ordnance Maps, where anyone could go and procure either a first, second, or third edition of the plan, and be quite sure of getting it. The agents very properly received a certain

remuneration for their trouble in selling the maps; but it was as well it should be known that the maps could be obtained direct from the office he had referred to. The price had been largely reduced: the sheets were formerly sold at double their present price, but, in consequence of representations that the prices were too high they had been lowered, and the maps were now procurable at a very moderate cost.

The question of levels was one which was peculiarly his own. He was one of those employed for a great many years on the Ordnance Survey, and the introduction of the system of contours was entrusted to him. He hoped to see the day when hill-shading would be abandoned for contours, giving an exact model of the ground. The public were beginning to appreciate the value of contours; and he was delighted to hear that the map which was published with contours was sold, as against the shaded map, two to one. While in Dublin, an executive officer of the United States Service came to his office, and in the course of conversation observed, "You see we are not behind you; we have at once adopted what you have done," showing him a contoured map of San Francisco. This was more than 25 years ago. The Director-General of the Survey was aware that it would be an improvement to have more contours, and he (Colonel LEACH) had pressed it very strongly upon him. But the same remark applied to the contours as to the revision. It was not desirable to take the force from their present work, and it must be done afterwards, so as not to delay the publication of the maps. He hoped the Institution would approve of the decision the Department had come to, and agree that the great point was to get the map as quickly as possible. They might feel perfectly confident that the Director-General of the Survey was doing his utmost to secure this result, and that the public would

have a most admirable map in a very moderate space of time.

Mr. W. Rex (Fellow) thought the quality of the paper on which the maps were printed was the reason they would not join. The thicker paper shrunk very much more in drying, and consequently did not fit the adjoining sheet if it happened to be thinner than the other. He suggested that the sheets should be printed on paper of the same quality and in the same state of dampness, so that they might dry equally.

The President, in summing up the discussion, observed that, on the whole, the balance of opinion seemed to be in favour of the omission of the hedge-row timber. The question as to what an owner would think of a plan which did not show the timber, might be answered by asking what would an owner be likely to think of a plan which showed timber that had long ceased to exist; for when once the trees were printed on the maps, it was, as Mr. Leane had pointed out, extremely difficult to efface them.

He confessed that he was quite unprepared for the observations which had been made with reference to parish boundaries. He thought it was beyond dispute that the Ordnance authorities had taken the greatest pains to get the boundaries exact; and such a case as Mr. Cheffins had cited was beyond explanation, except on the supposition that he had encountered part of an unfinished survey. His own experience went to prove that the parish boundaries were shown with the utmost accuracy on the Ordnance Map.

One speaker had referred to the difference between undulating measure and flat measure. The younger Members might find it very instructive to calculate how many more pales it would take to form a fence passing over a hill than would have been required had the ground been level

between the extreme points, always assuming that the pales were the same horizontal distance apart, and quite perpendicular in both cases. They would probably come to the conclusion that the same number would be required, and if this were so, it was obvious that exactly the same number of straws could be grown on a flat surface as over a hill, the base of which was of similar superficies.

The point to which he attached most importance, in connection with these maps, was the property boundaries. He might remind the Meeting that he had advocated no change in this respect in the map as prepared for purely military purposes, where the delineation of the actual physical features of the country was the special object in view. What he had suggested (and it might be deferred, if necessary, till after the completion of the survey) was that, in addition to the physical lines upon the 25-inch map, other lines should be depicted, showing the actual boundary of the fields; and it would be seen, on reflection, that there was nothing impracticable in this proposal. It had been remarked by Mr. SQUAREY that, in some parts of the country, where the ditches were double, a difficulty would arise; but it was merely a question of two lines instead of one, to show the outside edges of the two ditches. The extra lines, giving the real boundaries of the field, might be shown upon copies of the map other than those issued for military or general purposes, and be purchasable by those who required them as property plans. He was of opinion that the register of ownerships was a feature without which the survey would lack a desirable element of completeness. Many of those present would be surprised, as he was, to learn that the maps could be procured uncoloured, and would avail themselves of an arrangement so convenient for many purposes.

It was well worthy of consideration whether the foot-paths would not be better shown, on the revised maps, by single dots, or by scattered groups of dots, so as to distinguish them from public highways, for which they were now frequently mistaken, with the results referred to by Mr. CLUTTON and Mr. GARRARD.

No speaker had alluded to the necessity of revision, in order to keep pace with the alterations of physical features in constant progress. Of course, if Parliament declined to vote more than a certain amount, the whole of which was required in order to complete the survey by the year 1890, there was nothing for it but to wait till after that date for the revisions which were so much needed.

He was quite aware that many of the suggestions he had made might be said to be in the interest of owners of property rather than of the general public. Perhaps many landed proprietors contributed as large a proportion to the rates as other ratepayers, but it was fair matter of discussion, and might be regarded as an independent question, whether they were entitled to have these improvements at the expense of the general body of ratepayers. One of his correspondents on the subject had gone so far as to express an opinion that nothing should be paid for by the general community but the 1-inch map, and that the expense of providing the larger-scale maps should be borne exclusively by the landowners who wanted them. Another correspondent, referring to the question of shrinkage alluded to by Mr. REX, had suggested that the paper used for the maps should be hard and tough, so as to bear handling in the field; but that difficulty could be got over by mounting the maps in cut joints, so arranged as to come between the junction of the sheets.

He begged, in conclusion, to express his acknowledgments of the manner in which his Paper had been received and discussed.

The vote of thanks having been put and carried unanimously, the Meeting adjourned.

PAPER 107.
No. 189.

THE PRACTICE OF DISCOUNTING THE VALUE OF ESTATES IN REVERSION.

BY E. I'ANSON (VICE-PRESIDENT).

Read at the Ordinary General Meeting of THE SURVEYORS' INSTITUTION, *December 18th*, 1882.

THE PRESIDENT (MR. E. RYDE) IN THE CHAIR.

THE subject to which I desire this evening to draw your attention, which to all who have had occasion to value property must be familiar, is the Table at which a sum of money to be paid in reversion should be discounted.

Although the principle on which this should be done appears to me so clear, I find myself at variance on this question with many of my professional brethren, in whose judgment I place great reliance, so that I often ask myself, Am I wrong in the principle I adopt or am I not? and now I ask the gentlemen here present, Is my principle wrong or is it right?

The simple question is, If a sum of money, ascertained to be due at the end of any number of years, has to be paid at once, how should you calculate this?

To illustrate the question, let us take figures:—Suppose A is under obligations to pay B £10,000 20 years hence, and that A and B agree together that A shall pay to B such a sum of money at once as will, if accumulated in the best way which B knows how to do it, arrive at, or amount to, £10,000 at the end of 20 years.

Of course it is obvious that A would not have to pay B £10,000 at once, because B can always get some interest for his money, so that, if A paid B £10,000 down, he would, by the time 20 years had passed away, have been getting, even if he invested the money in a security paying no better interest than consols, a sum of about £300 a year for 20 years, which he is not entitled to, so, naturally, it is for A to agree with B what less sum than £10,000 it would be fair and just that A should pay him.

All this seems very elementary and self-evident, but it is not so self-evident when you begin to consider what is the smaller sum A should fairly pay B, in order that he, with proper management, may accumulate that sum so that with accumulation at the end of 20 years he gets the £10,000.

We have at this stage of the business to consider two things, viz. :—

What rate of interest can be procured on a safe investment for the sum of money to be paid down, and then at what rate of interest yearly can the income from the invested money be accumulated. Now, it is not altogether easy, but we will assume it is generally practicable, at the present time, to invest so as safely to obtain 4 per cent. ; but the difficulty is how to invest the yearly income, which must be yearly invested and added to the first investment, so that it may gradually accumulate until it reaches £10,000.

Now, dealt with mathematically, we have only got to consider and determine the rate of interest at which we think the accumulation may be made, and, having settled that, any table of compound interest will give the result. Say we determine that interest may be obtained and accumulated at the rate of £5 per cent., and then you get a resultant figure, which shows with mathematical correctness

that £3,760 paid now is as good as £10,000 paid 20 years hence. If we think £3 per cent. is the rate of interest obtainable, and on which you can accumulate, then £5,500 is the equivalent sum, which the table gives, in present money, as the value of £10,000 deferred 20 years.

The question of course is, What should be the rate of interest for accumulation?

Let us consider the calculation on the £5 per cent. table. Supposing you are B, and I (A) hand over to you the figure which the table gives you of £3,760 for you to manipulate, or so that you are to get in 20 years the £10,000 I owe you.

Remember that the compound interest table is calculated on the assumption that every year the interest received is added to the capital, and at the end of the first year the capital sum, plus the first year's interest added, is that on which you have to obtain interest at the end of the year; and so it goes on increasing year by year by that operation, which we call compound interest, until at last, with due care and attention, you can, adding year by year, accumulate your money until, in the 20th year, you get the £10,000 you are entitled to.

Now, let me ask you, Is it easy to find an investment in a good security from which you can obtain 5 per cent. interest?

I am sure you all know that it is not only not easy, but I should say very difficult, to find a safe investment for the £3,760 which the table gives as representing in present payment A's distant obligation, and still more difficult to invest the interest as it becomes due; but I will suppose you really have found a good and safe 5 per cent. investment.

Now, at the end of a year, having invested the interest on £3,760 in something quite good, had the trouble of

arranging the investment, paid your lawyer or your broker for his trouble in the matter at the end of the year, if you are ultimately to realize your £10,000, you must get your interest very punctually paid, and you must not lose a day in finding an investment at the same rate of interest for the first year's interest on the £3,760, say £188—however inconvenient, you must go and do so or you must pay somebody to do it for you,—and should you incur any expense, directly you have done so, part of your £10,000 is gone for ever, and it is gone, too, 19 years before you come into the capital sum you expect ultimately to get.

We know that the brain of the gentleman who calculated the compound interest tables for us has worked out this problem, as BABBAGE's calculating machine, by an adjustment of figures and a few turns of the handle, produces the figure of £10,000; but I will undertake to say that you cannot in practice do it yourself—no man can, it is a mathematical fact,—but no man can in practice work it out and accomplish the desired result.

The difficulty may be decreased if you invest your money at 3 per cent. Consols may be safe for 20 years to pay 3 per cent., but even that, in these days of change and abundance of money, is extremely doubtful; and then expenses are incurred which really ought to be allowed for, so that the net £10,000 may be got at the end of the 20 years.

Now, I think, put in this abstract and very elementary way, you will all agree that B, if he is quite fairly dealt with, ought to have a reversion calculated at such a rate as that, with care, he may recoup himself for his expenses and trouble during the 20 years he is diligently engaged in seeking investments and adding interest to interest.

I do not think you would any of you say that the five per cent. calculation would be fair.

I do not know if you could even say the three per cent. calculation would be a proper solution of the question.

In practical matters some little risk must be run on either side, so if B is obliged to take prepayment of his money he must, as in most matters of business, run a little risk, and take a little trouble about it, so that you would probably, in determining the rate of interest, leave a little margin to cover the risk and trouble, and I am sure this would lead you to say five per cent. interest is not a fair basis of calculation.

Now, taking this as an abstract question, I think I must have you all with me.

Why, let me ask you, should it be different in compensation cases? Here I find that when I seek to apply this principle in, I think, a moderate way, using the four per cent. table for discounting, I am told none of my professional brethren do so; that it is a fad of mine, and altogether the principle I contend for is generally deprecated—as I said at the commencement of these notes I ask myself, and I now ask you, where is the fallacy of my argument?

What is contended, as I understand, is that in calculating for selling property, compulsorily taken, you are bound to use the same table for discounting the reversion as you are for capitalizing the rent or income.

Thus, taking freehold estate, if you value it at 20 years' purchase, and the value is deferred, you must calculate the reversion at the same table, the five per cent. table, on the assumption that you can buy property of the same sort at the same number of years' purchase, and accumulate from time to time the interest at the same rate. Now, I say this is practically impossible.

Again, if it is leasehold property which you capitalize at the six or seven per cent. table, you are told you must discount at the same table. The operations, I contend,

are totally different. The principle that you are bound to discount on the same table as that on which you capitalize is, I contend, not only illogical and unsound, but one very unfair to the owner who is deprived of his property.

Make it your own case. You let a house of which you have a long lease. You let it, say 20 or 30 years ago. There is, say 10 years of the term unexpired. You are agreed (which is no uncommon thing in the City) that the house has doubled in value since the lease was granted, but you must wait 10 years before the underlease you have granted expires, and before you begin to enjoy the increased value—which increased sum you have agreed upon and also agreed to capitalize it on the six or seven per cent. table. Would you think it just if you were handed a sum of money of which you must invest and accumulate the interest at seven per cent. for the next 10 years to come? I consider you would think it very unjust. Now, gentlemen, this is, I believe, what is happening every day.

I again repeat, is this right? Is it not much more like right that, in discounting the value, you should use a rate of interest which—whatever the capital sum is (for I cannot think it can, in the least, matter whether this capital sum is derived from the capitalization of freehold ground-rents, or rack-rents of freehold or leasehold estate)—can be accumulated so as really to produce the capital sum required at the end of the number of years, allowing for accumulation and realization, even if you do not allow for expenses?

And yet, for some reason which I do not understand, I find I am in a minority in this conviction, and can seldom find any colleague who takes my view.

One notable exception was the late E. J. Smith.

Now, with your permission, I will give you the particulars of a typical case, in which we were jointly con-

cerned. The case to which I refer is that of the Earl of HARRINGTON and the Metropolitan Railway Company.

This was a case where a plot of land had been let on a building lease for 99 years, with certain conditions as to the class of houses to be built thereon. In order to form the railway, it was necessary to sacrifice 35 plots of land on which the ground-rent was apportioned at £70, for which the Earl of HARRINGTON claimed compensation, as well as for his reversionary interest in the houses, which, under the building agreement, would have been erected on the land.

At the time the claim was made, namely, in 1871, there was an unexpired term of 85 years. Four eminent Surveyors (three of whom are now living) were consulted as to what the Earl's claim should be, and the matter ultimately came into the hands of Mr. EDMUND JAMES SMITH, with whom I was afterwards associated, to estimate the value of the Earl's interest. It was agreed that, at the end of the building lease, the value of the property which would come into the Earl's possession would amount to £163,000.

And the question was, what sum in present money would represent the admitted value in reversion?

All depended, therefore, on the table at which the reversion was discounted.

In the notes of Mr. SMITH's evidence, he begins by explaining that the capital sum of £163,000 was obtained by capitalizing the rental value at 20 years' purchase—the five per cent. table—and then he says:—

The old-fashioned Surveyor would discount this at five per cent., and would place the present value at £2,575.

It is probable, he says, that the Surveyors of the Company will discount at four per cent., and place the present value at £5,919.

But the Surveyors of Lord HARRINGTON will discount the

£163,000 at 3¼ to 3 per cent., and place the present value at £10,750.

He adds that, having regard to the constant diminution which has taken place in the value of money for the last 200 years and the accelerated action consequent on the importation of gold during the 30 years' precedent, he does not think that the rate of interest can be taken fairly at 3¼ per cent. for the unexpired term of 85 years, and that it would be a very moderate estimate to take the interest at 3¼ per cent. for the first 21 years, 3⅛ per cent. for the next 21 years, and 3 per cent. for the remainder of the term of 85 years.

He further observes that it must be borne in mind that by far the greater part of the compound interest arises in the last 42 years, and, therefore, that the probable rate of interest during that period forms a most important element in the calculation. On that principle we worked out the figures so as to justify the claim of £10,750.

And in the course of giving evidence it was further contended that in the locality named, near Gloucester Road, South Kensington, and with the class of houses which, under the building agreement, would have been built, that the estimated rental value of the houses would have materially increased, and he contended that the value at the end of 85 years was really under-estimated.

The question was intended to have been referred to Mr. HANNEN, now Mr. JUSTICE HANNEN, but it was referred to another Barrister for his award.

The claim was not fully sustained. but I concurred in the principle, and I contend it was right.

The amount awarded was actually £7,865.

Now, I will refer to a much more recent case. It was a claim by Bartholomew's Hospital against the Commissioners of Sewers of the City of London.

Now, the only difference between myself, acting for the

Hospital, and the Surveyor to the Vestry, was as to the rate of interest at which the admitted value should be discounted.

I claimed it should be discounted at the 3 per cent. table; this I feel was a little too low, for what I usually contend for is the 4 per cent. table, and I could get no one whose authority was weighty in such subjects to support me except the late Mr. SMITH; he declined, however, to go into the witness-box. It was but a short time before his lamented death, and he excused himself on account of his well-known infirmity of speech, although we all know, notwithstanding this, the powerful evidence which he was always able to give; but he wrote me a letter, from which the following is an extract:—

"16, Whitehall Place, S.W.,
"March 18th, 1880.

"I never give evidence. The argument is simple. The money received is to be re-invested and accumulated. Then, where? The purchasers say in property of the same nature. But the increase depends not on the first investment, but on the re-investment of the annual proceeds. Where can that be done? Clearly not in real property, for the costs would eat up each year's gain. If anywhere, then, in consols. Re-invest in consols, and see what is the ultimate amount. And see where you can get more. If not, then, consols, accumulation must be taken. You sell, at 25 years' purchase, for £10,000, and buy similar property and have £400 to re-invest. Do it if you can in similar property every year. Every penny of costs extinguishes the compound accumulation.—Yours truly,

(Signed) "EDMUND JAMES SMITH.

"EDWARD I'ANSON, ESQ."

This matter I have long desired to bring under your notice, with a view to elicit an opinion from so learned a body as yourselves on these questions, and which would be a guide and help to all who are engaged in the numerous questions of this kind which constantly arise.

Mr. W. J. Beadel (Vice-President) had much pleasure in proposing a vote of thanks to Mr. I'Anson for the very practical, terse, and able Paper which he had prepared on a subject so well worthy of careful discussion at the hands of the Members of the Institution. It would, no doubt, be admitted by those who were called upon to deal with compensation cases and with reversionary interests, that the application of the customary tables did not place the recipient of money in the proper position as regards re-investment; but, be this as it may, it was impossible not to foresee considerable objections to the practical adoption of the principle enunciated by Mr. I'Anson.

To re-invest money in such a way as to comply with the exact conditions assumed in constructing the tables, the investor would have to meet with the required investment to the day, and, moreover, with the exact amount of investment required, which was, of course, absolutely and utterly impossible. Some persons, indeed, contended that a reversion, if sufficiently remote, was absolutely unsaleable. Referring to the latter part of Mr. I'Anson's Paper, and the allusion to the late Mr. E. J. Smith (to whose memory no tribute too high could be paid), it would be observed that Mr. Smith did not carry out his own principle to the full, because, with his intelligence, he recognized the difficulty. How, then, was it to be overcome?

Assume, for instance, that it is a question, as Mr. I'Anson had put it, of £10,000 hard cash, to be received at the end of twenty years. In that case the reversion would certainly be entitled to the best security obtainable in this country; in fact, nothing short of the security offered by consols. If, on the other hand, it was a question, not of hard cash, but of £10,000 worth of house property, accruing at the end of the twenty years, what was the table on which

to discount it? Mr. I'Anson had instanced, in support of his theory, the case of City property, which, looking forward twenty years, might double in value, and asked whether it was fair in that case to discount on the table on which the present value was capitalized, or on which property was discounted which was not so liable to immense rise in value. But, admitting all this, take the case of agricultural land. Twenty years ago it was thought there was no investment so certain as agricultural land, or so sure to increase in value, and nothing that a man could leave to his wife or his family which would afford so certain an income for the future. Look at agricultural land at the present moment, and suppose those who had advised the investment in it had argued: "This land is sure to increase in value; therefore, instead of discounting it by the 4 per cent. or 5 per cent. table, take it at the rate of consols." What would be the position of such an investor under present circumstances?

It seemed to him, therefore, that those who contended that the discounting of a reversion should be on the same table as would apply to the purchase of the property, were not altogether in the wrong. If any difference were made, it should possibly be in the percentage on compulsory sale. But there was a reason why this percentage should not be increased, for although on an annual value of, say, £10,000, the percentage for compulsory sale amounted to a comparatively trifling sum, when multiplied by a term of years it came out at a very big figure indeed.

In Lord Harrington's case, referred to in the Paper, £70 a year was the ground-rent agreed upon to be capitalized, and it was stated by the author that the property in reversion, at the expiration of 99 years (85 years having to run), was assumed to be worth £163,000, though, not a brick had been put up upon it as security for the ground-

rent, and not a single thing had been done to enable the lessor to say, "Here is my property made for ever secure to me and my heirs and assigns." It was assumed that houses would be in existence on the estate 85 years afterwards, in a solid and substantial condition fit to command the rents from which that enormous sum could be raised. Now, put the matter to a practical test, and suppose that any of the gentlemen he was addressing had the offer of a reversion falling in in 85 years. Would he be prepared to give anything whatever for it? Would he not say, "The thing is unrealizeable for some three generations, and why should I buy what may come ultimately into the hands of a perfect stranger." There was no getting away from the fact that there were certain things which had no practical market value, and, if so, how was it possible to apply tables of any sort to their valuation? Nevertheless, Mr. I'Anson had endeavoured to induce, not indeed Surveyors, but the gentlemen before whom his case came, to believe that there was some reversionary value after the 85 years, but which, so far as his experience went, had no present basis of fact.

Mr. F. Vigers (Fellow) joined with Mr. Beadel in sincerely thanking Mr. I'Anson for the Paper which he had just read. Mr. I'Anson had, he presumed, intended to bring this question forward as one on which there was a practical difference of opinion between Surveyors. He (Mr. Vigers) ventured, however, to suggest that, if this were the case, he had scarcely done what he intended to do. Mr. I'Anson had assumed that it was a question of £10,000 in money which he had to deal with. If that were so, he (Mr. Vigers) did not think he should have anything to say against Mr. I'Anson's argument, for in that case he would certainly be entitled to have the sum capitalized

on the 3 per cent. table. But it was something totally different that Surveyors had to deal with in every-day practice. He would apply this test to it. Suppose, for the sake of argument, that Mr. I'Anson had to deal with the reversionary interest only—not the present interest at all; upon what table would he be able (putting aside railway compensation for a moment) to go into the market and sell the reversionary interest, having regard to the fact that the rent which was expected to be received was from houses which had to stand the wear and tear of many years? Surveyors knew, practically, that reversionary interests were almost unsaleable. Reversionary interest societies had been established upon the basis that they would deal with property which the general public would not touch at all, and that therefore they had the market practically to themselves. He thought that a good test of the soundness of the principle of computing reversionary interests upon a better table than that on which the present interest was computed. The income secured would be dealt with upon a 4 per cent. table; after that, there came an item more or less speculative, according to circumstances, and he had always felt, that when dealing with an owner who was compelled to sell, if he put his reversionary interest on as good a footing as that which was real and established, he put him on a better table than he would be put upon if he went into the market to sell. Of course, all Surveyors had to argue this question over and over again, and in dealing for railway companies he had always felt that if he were to purchase the reversionary interest upon a better table than the interest which was reliable and substantial, he should not be doing his duty to his clients. That had always been his view, and he had not noticed anything in Mr. I'Anson's Paper that would induce him to alter it. In fact, he ven-

tured to say, with the greatest respect, that the Paper had not dealt at all with the question which came practically before Surveyors.

Mr. E. SMYTH (Associate), like most of those present, had a very grateful recollection of the exceedingly interesting and useful Paper which Mr. I'ANSON read some years ago on the topography of the Metropolis, and the value which certain portions of it commanded at the time; and, looking at the illustrations given at the close of the present Paper, he hoped that it might be regarded rather as a continuation than a conclusion of Mr. I'ANSON's remarks on a city upon which he was so competent to inform the Institution.

With regard to the subject of the present Paper, he should have little hesitation in subscribing to Mr. I'ANSON's conclusions, but he should have the greatest possible hesitation in subscribing to his arguments. The title of the Paper was "The Practice of Discounting the Value of Estates in Reversion," and the question he put was substantially this,—"At what rate should the discount be computed?" His (Mr. SMYTH's) impression was that the answer depended almost entirely upon another question, namely, "What is the security of the estate with which you are dealing?" but he did not notice anything touching on this point until he came to Mr. I'ANSON's words, "What is contended, as I understand, is that in calculating for selling property compulsorily taken" (and here he would have added, 'or for an equitable division between a term-owner and the remainder-man'), "you are bound to use the same table for discounting the reversion as you are for capitalizing the rent or income. Thus, taking freehold estate, if you value it at twenty years' purchase, and the value is deferred, you must calculate the reversion at the same table,—the 5 per

cent table." He thought there could not be a sounder contention than that, whether one was dealing with either a reversion or a present term.

Taking the 3 per cent. funds as typical of a secure investment, if the freehold in question had been properly valued at a higher rate of interest, this had been done because of its being expected to yield a diminishing income, or because of a feeling that it should be so regarded on account of the degree of uncertainty as to whether, in future years, the income would be greater or less than at the present time. Now if an annuity table were analyzed by observing that it is nothing else than the successive totals of the present values of £1 receivable in successive years, it would be seen that the peculiarity of the increasing risks of this estate was suitably met by the circumstance that the cash values of the income of successive years were put at a much more rapidly diminishing rate in the case of 5 per cent. interest than in the case of 3 per cent. Then why should a Surveyor who, when writing down "20 years' purchase," thus fixes, of his own free-will and judgment, the cash value of every single year's income for the perpetuity, seek to fly away from his own valuation to some table at a lower rate of interest when dealing with a particular portion of such perpetuity? For the reversioner to ask that the purchase-money of his interest should be as much as, by accumulation in consols, would produce at the end of the term the present fee-simple value of this risky property, was to ask that, almost entirely at the expense of somebody else, his property should be converted into one that was perfectly secure.

But when he came to the second case instanced by the author at the end of the Paper, he was quite at one with him; because it was apparent that he was then dealing with property

which, from its situation, might be regarded as at worst a 4 per cent. security, and a claim for reversionary value based on the 4 per cent. table, he thought, would be moderate. The explanation was this: It seemed to be a case of house property, as it generally was when this dispute arose; and he would therefore presume to repeat a brief suggestion, which he first printed in 1860, and repeated at the Institution 10 years afterwards, without supposing, however that there was anything particularly novel in it. Mr. MATHEWS's Paper was then under discussion, and he believed it was pretty generally understood that the main scope of that Paper had reference to the question of the proper valuation of the reversion of house property in a thoroughly good situation,—an idea which was confirmed by the illustrations appended by the late Mr. E. J. SMITH, as a sort of rider to that Paper. These illustrations were drawn, in two instances, from important parts of the Metropolis, and in one from, he thought, the town of Sheffield, which stood about sixth among those of England in point of population; and it was, therefore, to house property of such a secure class that his (Mr. SMYTH's) remarks then applied, although he found he might have stated this more explicitly. The suggestion was, that if valuations of the freehold of house property were, he did not say more correct, but were shaped in a more scientific manner, this dispute would disappear. At the present time the allowance for average losses of rent, through bad tenants and vacancies, and also the allowance which it was necessary to make (if income from house property were regarded as a perpetuity) for the maintenance, year by year, of a rebuilding fund, were, through general habit, made (very inappropriately, as he thought) by putting a low years' purchase, instead of by deducting from what was called the "net annual value" the amount

of those annual out-payments or charges, as he submitted should be done. Instead of nominal "net annual value," they would thus have an average net annual income; and that smaller amount they would therefore capitalize at a much higher number of years' purchase, varying from 25 to 30 or upwards, according to the situation of the property and the anticipated future demand for houses there. Then, the division of the fee-simple value between a present and a future owner would proceed, at a corresponding rate of interest, with as little question as in the case of agricultural land.

Mr. W. Eve (Fellow) agreed with the views expressed by Mr. I'Anson. He did not see the distinction that had been drawn between leaseholds and reversions. In Mr. I'Anson's illustration of the £10,000 he imagined that the person had actually to receive £10,000, and he could not believe that the principle enunciated in the opening pages of the Paper could be controverted, viz., that it was practically impossible to re-invest driblets at the rate of interest at which a lump sum could be invested, and that it was therefore necessary to allow the rate of interest at which the re-investment could be made. Take, for argument, the case of a leasehold, where the investor wanted to get 5 per cent. or 6 per cent. for his money, and invest the balance each year in order that at the end of the lease he might recoup himself (which he surely had a right to do) the cash he expended at the commencement of the transaction. It was impossible to re-invest those driblets at 6 per cent., and possibly at not more than 3½ per cent.

If, in the case Mr. I'Anson had cited, £163,000 was the wrong amount, that was a matter by itself and did not affect the argument, for Mr. I'Anson presupposed it to be the

right, and in fact the agreed, amount. It was therefore a simple question of supply and demand. As Mr. VIGERS had put it, the demand for such securities was extremely limited, and persons therefore consented to sell at a price producing a larger rate of interest. It seemed to him, the two rates should be different for this reason:—Suppose, in one case, one was buying a security (the value of which at the end of the period was agreed upon as in Mr. I'ANSON's case) at, say, only ten years' purchase, and, in another case, a security at six years' purchase, unless the capital sum and re-investments were dealt with on different tables, very different and erroneous results would be arrived at. Those calculations must be made separately, as it would be very difficult to deal with a case where the principal part might be dealt with on the 6 per cent. table, and the other part dealt with on the 4 per cent. table. He did not agree, unless a reversion were very good, that an investor should ever take the 3 per cent. table, but he thought, with Mr. I'ANSON, that it was not right to take, say, the 6 per cent. table for the principal, and then deal with those driblets on the same table.

He thought that leaseholds should always be dealt with at 3 or 4 per cent. for re-investment, and could not see anything which justified a higher table, unless the principal were a large sum. The chief point was, what was the capital sum to which the person will be entitled at the end of the period. The next point was the calculation of the present value of this amount, by the all-important question of supply and demand, but he thought there should be a difference in the rates, and the principle on which Mr. I'ANSON had gone was, he ventured to say, a correct one.

Mr. C. K. BEDELLS (Fellow) thought there was some

fallacy in the arguments in opposition to Mr. I'ANSON's view in this respect, that they overlooked the fact that the question of whether the income was derivable from ground-rents or cottage-rents had already been fully considered in the amount agreed on as the future value of the reversion; and why, if that were already considered and taken for ground-rents, say, at 3 or 4 per cent., and for cottage-rents at 10 per cent., was it to be discounted over again? The principle, as he understood it, of Mr. I'ANSON's theory was this:—The property has already been valued as a reversion arising from a certain kind of property, when the value of the reversion at, say, a distance of 20 or 100 years, has been agreed upon, and he thought that Mr. I'ANSON was perfectly right in arguing that this having been done he was entitled to have such a sum in present money as would, with ordinary compound interest, at that distant date produce such agreed amount, and he could not see that it mattered a farthing whether the income was originally derived from cottage property or ground-rents. Any question of that kind had been previously disposed of, and it then became a question more for the Actuary than the Surveyor. He could not agree with Mr. W. J. BEADEL, that there was no value in a reversion at the end of 85 years, especially when there was a ground-rent receivable meanwhile, and leading up to a larger rack-rent in reversion. He was speaking in presence of gentlemen in that room who had given him at least a year's rack-rent of the house in addition to the value of the ground-rent. The separation of the ground-rent from the reversion in making the valuation was for convenience in calculation; but it was simply a cash transaction, and the kind of security out of which it arose had nothing to do with it.

Mr. W. J. Beadel explained that what he said was, that remote reversions were of no *practical* value.

Mr. H. A. Rigg (Associate) said the argument struck him in this way (he did not know whether it was logical)—A was under an obligation to pay B £10,000 at the end of twenty years: what is the present value of the £10,000? Everybody appeared to have forgotten that the question was what was the extent of the obligation? The varying factor in the whole thing was the extent of the obligation under which A was to pay B. If A were under a certain and definite obligation to B, then there would be no difficulty about the matter. All that would have to be done was to look out the value in a book, in the same way that one looked out the logarithm of a number; but if that obligation were a varying factor, it was necessary to pursue the course always pursued, and go to some eminent Surveyor, who could say what was the value of that obligation. Of course, the obligation differed in each case. In the case of cottage property it was of a certain value, and in the case of freehold property it was of another value, and in the case of ground-rents of another value; and, as he had said, it was because the value of the obligation was variable that people went to Surveyors for advice in such cases.

Mr. R. W. Mann (Fellow) said he imagined the question was whether the property was likely to improve in value or the reverse. Mr. Beadel had just observed that agricultural land had decreased in value, but some properties had increased in value. The recouping must be calculated at a different rate of interest from the capitalization if the property was improving and likely to continue to do so. In selling, it was the actual income at the moment that was sold,

and the fact whether it were likely to improve or not, must regulate the rate of interest. There were many reversions which were really worth very little—for instance, at the end of an 80 years' lease. But it was very much the fashion now for builders to adopt a rough-and-ready way of recouping themselves by chopping off 10 or 20 years at the end of their lease, and by the rack-rental for that term bringing back the actual value of reversion, so as to render unnecessary any calculations for the replacement of capital at the end of the term. He thought no hard-and-fast rule as to the value or the way it would be calculated could be adopted. It must depend on whether the property were likely to improve or not, and on various circumstances.

Mr. John Clutton (Past-President) said he agreed, to a great extent, with Mr. I'Anson's Paper. He held in his hand Vol. III. of the "Transactions" of the Institution, and at page 74 would be found an instance mentioned by Mr. E. J. Smith, in which a large estate in London, with a lease of twenty-seven years upon it, was agreed to be sold on the 6 per cent. table for £156,750. That sum, invested in the funds at compound interest, would have produced at the end of twenty-seven years £400,000. The estate was then worth £47,500 a year, and when it fell into hand was worth, say, a million or a million and a quarter, and the sum the reversioners would have had if the transaction had been carried out, (which it fortunately was not), was £400,000, producing, at 3 per cent., an income of only £12,000 a year! He was quoting from the Paper he held in his hand, and he could vouch for its accuracy. The Commissioners had since made grants out of that estate in perpetuity of £36,000 a year, and that was the result of not having accepted a valuation of the reversion based on the 6 per cent. table.

It was, he thought, quite impossible, in dealing with leaseholds, to calculate at the same rate as for a reversion. He thought it was unnecessary to go into the question whether the property increased or decreased in value. What had to be dealt with was the property at the present moment, and what was wanted was to know the present value, and apportion that value between the parties.

Mr. I'Anson said, in reply, that he was obliged to those gentlemen who had offered remarks in criticism of his Paper. He had long been desirous of an opportunity of consulting with gentlemen so well qualified as those he saw before him to form a judgment on the subject. It was plain, however, that there were two sides to this as to every question. Indeed, he and his friend Mr. Vigers had often discussed the subject between them, but had not agreed hitherto, and did not agree now. The general feeling of the Meeting seemed to be that it was wrong, in principle, to discount and capitalize on the same table. Again, some of the speakers did not consider it unreasonable to treat the property to be discounted, not as house property but as money. When once the price was fixed, it became a question of how to accumulate the deferred money value.

He agreed that, in capitalizing the annual value of house property, it was the net annual value that ought to be taken, but he did not think any allowance necessary, because he believed all would agree, if house property be capitalized at 5 per cent., it is because that rate of interest allows for some risk. On the whole, he thought he should be emboldened, in future, to support the opinions he had hitherto entertained.

The President, in summing up the discussion, observed

that, after all, it was a discussion on the practical application of the Lands Clauses Act. He had, in the first place, to call attention to one very singular omission. Compensation cases had been referred to, and Mr. I'Anson based his Paper on his experience in such cases; but he overlooked the fact that provision was made in the Lands Clauses Act for the re-investment, in similar property to that which had been taken, of sums of money paid to trustees or persons under disability by the parties exercising compulsory powers, at the expense of those parties.

As regards other parties, a man who was free to do what he liked with his property, and had judgment and sound sense to help him, would re-invest as he pleased; but, if he did not re-invest in house property, it was not because there was no house property in the market to re-invest in, but because he preferred the better security of other property.

He thought it would not be at variance with anyone's opinion, that if the sum of £10,000 that had been referred to was quite certain to be received at the end of a given term of years, there could not be the smallest doubt that re-investment at about 3 per cent. was, at all events, as high a rate of interest as could be calculated on. The security was the whole question. What could be a better security than the absolute certainty of receiving £10,000 at any given time? He was a very happy man who had many occasions in his life when he could say, with absolute certainty, that he would receive £10,000 at such a date, and if he wanted to borrow money on such a security he would have no difficulty in doing so.

But it was necessary, in practice, to leave the business of the actuary, or the mathematician, and rub against the hard facts that the Surveyor met with in his every-day experience.

It was put very correctly by Mr. BEADEL that the valuation arrived at by Mr. I'ANSON was an estimate on the assumption that a certain quantity of building land by a given time would not only be covered with houses, but also that the houses would be worth the money they were put at. But, however clever a man might be, he could not tell with certainty what might be the value of house property 90 years hence. The Surveyor was bound, however, to make the best valuation he could; but where was the man who would take upon himself the responsibility of entering into the security and saying such and such a thing will happen affecting its value.

In some cases it might be right to discount at 4 per cent., and in other cases at the same rate of interest at which the annual value of the property was capitalized. Everything must depend on circumstances. Within the last fortnight a case came under his notice in which a man, buying under compulsory powers, purchased a lot of property on this calculation, estimating the value in reversion, and discounting by a proper rate of interest, and immediately afterwards the party selling was offered the same sort of property to re-invest his money, with payment of all expenses; but he declined, saying, "No, having sold my property, and got my 10 per cent. for forced sale, I will put the money into a better security."

The prospective value of the City houses referred to, doubled in ten years, and this fact was always taken into account in fixing the value of property.

(A MEMBER): Not always.

THE PRESIDENT: Then the valuation must be incomplete. He admitted that it was not always possible to get

Surveyors exercising compulsory powers to take this into account, because they had to do the best they could for their clients; but when they came to an agreement, as he understood they did in Mr. I'ANSON's case, they had taken all those things into account, so that the prospective value was all dealt with, and did not enter into the question of discount at all.

Investing by driblets had been said by one of the speakers to be impracticable. No one supposed it could be done; but if the re-investment be made in the same sort of reversion, the driblet question did not enter into the calculation. The person who sold a reversion at the full price could buy a reversion at a diminished price. He might have to wait a little while; but generally, if a reversion of anything like 90 years was bought (as in the case of Lord HARRINGTON's ground-rents), there would not be much difficulty in the matter, because there were very few who cared to take money out of their pockets, and pay for a thing they would never get a return for during their lives. A late Member of the Institution was very fond of buying that sort of property, where the time was just long enough to take it out of the general market. Some one had remarked that the demand for this class of property was very limited—and so it was; but that was the reason why it was possible to re-invest in it so readily. It was obvious, if the capitalization was taken at the rate of 6 per cent., and the re-investment was made on the 5 per cent. table, the figures, on the compared calculations, would present a ridiculous contrast.

He thought that, on the whole, the discussion had left this question very much as it was before. In looking at property, all Surveyors regarded the security of that pro-

perty, for that was the basis of all valuation; and he thought they would continue to do as they had always done in this respect.

The vote of thanks having been put and carried unanimously, the Meeting adjourned.

PAPER 108.
No. 190.

IMPROVED FARM HOMESTEADS AND THEIR INFLUENCE UPON AGRICULTURAL PROSPERITY.

BY A. D. CLARKE (FELLOW).

Read at the Ordinary General Meeting of THE SURVEYORS' INSTITUTION, *January 15th*, 1883.

THE PRESIDENT (MR. E. RYDE) IN THE CHAIR.

THE subject of farm buildings has always been one of considerable interest and importance to all land-agents who have had to deal with them, but I think, at the present time, it demands of those who have the management of properties where the necessary improvements required by the advancement of agricultural practice have been neglected, a more than ordinary share of attention.

I propose, as far as I am able, and as far as the limits of this Paper will allow, to describe the most important points to be observed in their arrangement and construction which will render them suitable for supplying the wants of intelligent agriculturists; and also such as will act as an incentive to those whose practice is careless, wasteful, or otherwise unsuited to the times, to pursue a better system. Probably I may, in some measure, travel over the same ground which has been traversed by others, and it is not within my power to advance any new theory; but the remarks which I have to make will, at least, be based upon a careful practical experience.

However desirable it may seem to make improvements—and it is very easy to talk in a general way about the advan-

tages of improved farm buildings—it will be well, in the first place, for agents to weigh carefully the circumstances attending all cases of projected improvements with a view of ascertaining whether any contemplated works will benefit the landed proprietor who supplies them; whether, in other words, it will pay to lay out the money? This, probably, is the first question which any of us suggesting an outlay for the purpose would be asked. A correct answer cannot be given in some cases without much consideration. In prosperous times it was often possible to show that a good interest for money expended could be obtained by an increased rent being paid by the tenant, but such clear evidence is, I fear, seldom now produced. So far as my experience goes, less improvements were asked for when times were good, and rents came in well. Farmers might then be in a position to lose a little by a bad system of management at the homestead, administered to by defective buildings, without ceasing to pay their rent and thrive; whereas, at the present time, it is not an uncommon difficulty for an agent to be placed in, to be asked to take 20 per cent. off the rent of a farm, and at the same time to expend a good round sum in improvements, with the alternative of the farm being given up.

Cases of this kind, with which I fear many Members of this Institution are too well acquainted, lead to a considerable amount of woeful reflection. We must all feel a deep sympathy with both landlord and tenant at the evils which have come upon them by the failure of the latter class to contend against the adverse influence of successive wet seasons, and increased foreign competition; but, at the same time, we must be practical, and see whether the "sweet uses of adversity" will not reveal to us the means of extracting some useful lessons for our guidance in the future. That such lessons abound I have no doubt, but as

I am now bordering upon a wide field for discussion, the importance of which called a Royal Commission into existence, I will not proceed to say in what direction I think they are all to be found. I will merely state that, as far as my own experience goes, one of these lessons shows that any outlay for the improvement of farm buildings, in supplying substantial wants and encouraging superior methods of farming practice, contributes largely to the prosperity of estates, provided that such works were skilfully and economically carried out.

Many gentlemen present are doubtless connected with a larger amount of land than I have had to deal with, and may to some extent differ from me in the conclusions they have arrived at; but, from my own observation, I am of opinion that those estates which have been properly supplied with good buildings have not suffered so acutely from the diminution of rents and from farms becoming vacant, during the recent, and to some extent, existing state of agricultural depression, as those which have, in the main, been denied these advantages.

As a rule a bad set of buildings, unless the land attached is of superior quality, attracts men only with a small amount of capital in proportion to their undertakings, and no worse thing could happen to an estate than for these men to preponderate. They start with no margin of capital left for reverses, depending almost entirely upon the "bushel," and have but a small investment in stock. The first bad year they perhaps struggle through; but if another succeeds they fall into arrears with their rent. I know of many such men who failed to meet their engagements with their landlords as early in the depression as 1879, and we may be sure that in the majority of instances these men have not recovered themselves without large remissions, while some have been obliged to relinquish their

occupations altogether. Of course, in some of these cases part of the evil might have arisen from losses in sheep by the liver rot, yet the case has frequently occurred without such losses.

But, on the other hand, on more than one estate which I am acquainted with where it had been customary to provide buildings which were suited to the most approved methods of management, matters have been quite different. Men of enterprise, judgment, and stamina, who saw the paramount necessity of investing largely in stock, were attracted to those farms where good accommodation for their profitable treatment was found at the homesteads; whether the land was mostly arable, or otherwise, it made but little difference, as they could be kept almost as extensively in the one case, as in the other, if a proper system was resorted to. Additional manure was made on their farms, which placed the land in a more robust condition to withstand the depleting effects of continued wet seasons; and, as stock has continued to maintain a good price, these men saved themselves from being brought into that ruinous condition which the other class have lately been reduced to. They have not perhaps emerged from the conflict unscathed, but they have continued to hold their own manfully without falling in arrear with their rent, and remain in their occupations with very moderate reductions, and, in some cases, with no reductions at all.

On comparing, at the present time, the general position of estates where these two opposite conditions have existed, there is a vast difference in the state of their prosperity. On the former I have seen instances where a large proportion of the land has been thrown, in a poor and foul condition, on the hands of the proprietor, to be brought round at a great sacrifice of capital into a marketable condition; many remittances and large reductions of rent have been

made; many arrears of doubtful value remain in the rentals; and a good deal of money is required for remodelling or improving the homesteads. Whereas, in the latter case, the farms are all let; the general rental is only moderately reduced; and, what is of the greatest advantage, the proprietor has been enabled to counterbalance, to a considerable extent, this slight loss of revenue by reducing the expenditure in the building department, having done most of that which was necessary in this respect in the more prosperous times.

It will be quite correct for me to say that such great contrasts are to be found, and that I have not strained matters in order to give effect to any opinions which I may have formed; nevertheless, I am bound to say that first-class buildings cannot be looked upon as a panacea for all the evils which have fallen upon agriculturists, as other advantages are necessary for success, such as ample capital, fair rent, suitable tenant-right, and good management. In some unsuccessful tenancies one or more of these qualities may have been wanting, or excessive losses may have occurred in stock; but where efficient buildings have failed in their good purpose, there is generally some sufficient reason to be found for it, if searched for by those competent to make the investigation.

I hope other gentlemen will express their opinions on this important point; but, so far as my experience goes, it is evident to me in many instances that capital invested in building improvements at farm homesteads, where needed, has produced an ample return by the maintenance of comparative prosperity to landlord and tenant in critical and adverse times such as we are now passing through, provided, of course, that the works undertaken were skilfully and economically carried out.

Land-agents will do well to seek for and give encourage-

ment to those farmers who will keep stock largely; but the great impediment to the introduction of necessary building improvements for this purpose at the present time will be found, I fear, in the strained condition of the pecuniary resources of those properties which frequently require the greatest renovation, and in many cases I am fully aware that it will be almost impossible to find the required capital until some favourable change of circumstances takes place. Nevertheless, I think that it will be wise to search out the true causes of any evils while we are smarting under the effects of them; and to devise proper remedies, that they may be applied, unerringly and to the purpose, when a suitable opportunity arrives.

Considerable assistance, however, appears to be at hand for many landed proprietors. On looking at the provisions of the Settled Lands Act, which takes effect from the 1st of January, it will appear that in the future much greater facility will be afforded to the owners of settled estates for executing improvements on their property, in comparison with the somewhat cumbrous mode of proceeding in taking up a loan under one of the Improvement Acts. These owners will now be enabled, with the approval of the trustees, to apply any capital trust money arising from sales of portions of their property or otherwise, to the construction of buildings and roads for farm purposes, a certificate from an able practical Surveyor approved by the Land Commissioners—that being the name the Inclosure Commissioners will assume—that the works have been properly executed, being all that is required. If this provision be taken advantage of when necessary, we shall probably see and hear less of defective buildings in the future.

In approaching that part of the subject which treats of the requirements of a modern homestead, or those necessary when an old set of buildings are to be improved or remodelled,

it will be well, before doing so, to take a review of the changes in agricultural practice which have taken place from time to time. We shall, by so doing, make ourselves acquainted with the drawbacks to be removed, and recognize clearly the objects to be aimed at.

On the supposition that we have presented to us a homestead which is now in the same state as at the early part of the century—and there are a large number of such to be found—it will be evident that considerable reformation is required. Since that time, in addition to the numerous minor changes, as I may call them, which have occurred from time to time, caused by the development of a greater scientific and practical knowledge—which, when taken together, represents a large reform in general practice—there are the marked departures from original methods, caused by the introduction of root culture, and the use of steam for threshing and other purposes. The introduction of turnips not only caused a revolution in the system of cropping, but brought to hand a fresh article of food for use at the homestead, thus enabling farmers to enter much more largely into the business of winter fattening of stock, to meet the demands of an increasing population.

It will then be seen, in order to provide for these altered conditions, that it is necessary to erect root houses and other buildings, for storing and preparing the various foods for stock, to give ample and efficient buildings and yards for their protection, and, as far as possible, the protection of their manure; and to supersede the use of the old corn barn by the introduction of winnowing rooms or granaries, and a straw room placed amongst the food stores. It must also be borne in mind that a larger amount of shedding will be required for storing the numerous modern implements now in use.

Much has been done on many estates to keep pace with

these demands; a considerable number of new homesteads have been erected (although it is to be seen that these have not always been designed in the most judicious manner), and important improvements have been made to others; but still it is to be regretted, in taking the country at large, that the majority are far behind what is now required, while some are in a most deplorable condition. But, in stating this, I do not wish to impute general blame to those landlords who have allowed such a state of matters to exist. On the other hand, I am strongly disposed to think that the blame rests, in many instances, with the farmers themselves, for had they created, by their activity and enterprise, a demand for accommodation of improved character, it would have been supplied eventually, if not when asked for.

I will now deal with that part of this subject which relates to the construction of the various parts of the homestead, afterwards, offering a few remarks upon their arrangement, as a whole, to supply the varying needs of different occupations.

The first of these buildings will be what may be termed the main food stores, and should comprise straw barn, root house, chaff room, hay store, cake room, and mixing room. It has become the orthodox custom, and I think rightly so, to place the whole of these buildings in a continuous, two-storey range on the north side of the steading, adjoining the stack-yard, thereby giving the one-storey portions, and the yards occupied by the stock, a southern exposure. The straw barn, on medium-sized farms, should be large enough to hold the straw from one day's threshing, and have one pair of doors for the admission of a loaded waggon, besides any necessary means of access from the interior of the homestead. If placed at one end of the range, which, I think, is often a convenient place for it, the mixing room

should adjoin it on the ground floor, and form the centre compartment. This also should be provided with the means of access for a cart, instead of the small doorway usually given, in order that chaff or other prepared food may be easily loaded up for conveyance to any other part of the homestead, or to the sheep fold. The floor above this will, as a rule, be found the most convenient place for chaff-cutting and for storing hay as one side of it will be open to the straw barn. The chaff can then be lowered with great facility, when required for use, through a trap-door to the floor of the mixing room below. The root house should come next and adjoin the mixing room, in order that any roots may be near at hand for being cut or pulped by the same power which cuts the chaff, and ready for mixing with it if required. The walls should be kept as free as possible from doorways or windows, that the turnips may be piled up, otherwise the capacity for storage will be reduced. In practice, I have found it answer well if the pulper is fixed on the mixing room floor, close to the wall of the root house, communication being given through the wall for feeding in the turnips; the pulp and chaff can then be mixed with a cast of the shovel. As convenience is now required on most farms for storing cake, maize, and other purchased foods, I would place a room for this purpose over the root house. Any mills for grinding or crushing the same could be placed there, if required, and the meal delivered by a spout to the chaff heap on the mixing room floor with the least amount of trouble; or the maize could travel from hoppers, through the spout, to feed the mill if it was placed on the mixing floor below.

As the machinery is always fixed in these departments, on farms where steam is resorted to, the engine house must not be forgotten. Whether the engine be fixed or portable, I prefer placing it in a shed forming a projection from the

main line of buildings; if portable, the shed should be the place for it at rest, as well as in motion. If a fixed funnel be placed in the roof, the engine can be drawn into a low structure, and a telescopic slide can be lowered on to the flange when it is in position; and I should recommend that grooves be made in the floor and the ends of the house left open, that the engine may be drawn in instead of being "backed."

These buildings comprise all the requirements which, I think, are necessary for forming the general food stores of ordinary farms at the present day; but, as a good deal of preparing and mixing now goes on, particularly when supplies run short in severe winters, I would recommend that the greatest care and trouble should be taken in arranging them, otherwise the facilities for doing this with a minimum amount of labour will be impaired.

As the foregoing buildings generally adjoin the stack-yard, it may be found desirable in some instances to extend the length of the range by adding a winnowing floor with granary above; or a granary only, to answer both purposes, with some cart or implement shedding below it; the stores for corn will then be near where it is threshed. These compartments for grain are now necessary, in place of the inferior accommodation afforded by the old-fashioned corn barn, which, of course, will never be reproduced. If the farm be large, a moderate-sized winnowing room on the ground floor is to be recommended, to save labour in hoisting up any corn going to market, and a granary may be placed above it for storing grain for seed, or any corn which might be benefited from the superior drying facilities which would be afforded there in bright weather. But if the arable land be of moderate or small extent, it will not be advisable to divide the necessary accommodation for these purposes, as both places would be inconveniently small. In this case it

is better for the granary to be placed above some open shedding; but it should not be partitioned off in binns, otherwise the winnowing process could not go on.

The next department in importance will comprise the houses, boxes, sheds, and yards for accommodation of stock. These should be placed upon the south side of the two-storey range, abutting against it in a compact block, without intervening roadways. This will secure economy in building, and save labour in carrying on the work at the homestead. Feeding passages are necessary for allowing a hand-truck to reach the whole of the mangers, but the extent of ground occupied by these should be reduced to a minimum, as far as possible, by making one passage serve mangers on both sides. The cowhouse and feeding stalls are the most important of these buildings, and it is desirable that they should be approached immediately on leaving the mixing room. As the internal arrangements of these are similar, any accommodation given will be available either for fattening or dairy stock; but it will be well, if the whole be placed in one house, that a divisional wall be placed across some part of the building, to secure that freedom from molestation and disturbance, by the ingress and egress of other stock, which is so desirable for feeding animals. A large number of stalls can be more economically provided in a house of double width than by placing them in single rows, as two outer walls will be saved, as well as the space occupied by a feeding passage; but, whichever plan is adopted, stockyards should occupy the space adjoining the wall at the back of the stalls, in order that the manure may be removed there with the least trouble when they are cleaned out. Cows are sometimes placed in single stalls, 4 ft. 6 in. wide, but they will be quite as comfortable if two are tied in one of 7 ft. in width, and a considerable saving of space will be effected.

It is always requisite that a few boxes should be provided for cattle which are found to thrive best in separate quarters, or for cases of sickness and calving. These can be placed with propriety in any convenient corner; but where a system of box-feeding is resorted to, the accommodation must, of course, be adapted to it. If the comfort of an animal be fully studied, it is evident that the freedom of a box is preferable to the restraint of a stall; but, as the area required by an animal is 25 per cent. more in the former than in the latter, and as they are expensive structures if properly built, with a space below the ground level 2 or 3 ft. deep, for the accumulation of manure, I should not be disposed to encourage the system. Where stalls were decidedly objected to, I should be inclined to offer covered yards, which are, in fact, large boxes, and suitable for a variety of additional purposes.

The yard accommodation given at a homestead will be either open with the usual shedding, or entirely covered in. If the former be preferred, I strongly recommend that the area devoted to them should be strictly limited to the number of beasts to be accommodated, allowing 140 sup. ft. for each. No area space in addition should be allowed for the reception of stall-made manure; but, if required, the surface of the yards should be lowered, that it may accumulate to a greater thickness. The distribution of manure in a thin deposit over a large enclosure is one of the evils frequently observable in old homesteads, and should be avoided because of the greater surface presented to the detrimental action of the elements. One-third of all open yards is necessary to be covered in if the shed is to be fully effective; and eight or ten beasts are usually considered sufficient for one yard. A southern aspect is to be preferred, but if the site be much exposed to driving storms from the

south-west or west, it will be better to choose a south-east aspect for the front of the shed.

With respect to covered yards, I think we are all very well acquainted with the strong reasons given by many scientific and practical men in favour of their adoption. One point of advantage, at least, connected with their use, is too well assured to admit of any diversity of opinion—that of the benefit which the manure receives from protection against the weather; and it may be remarked that feeding stuffs are as much resorted to at the present time for enriching this, as for hastening the feeding process of the animals.

But, in regard to the beneficial effects of these yards upon all classes of stock, there exists some diversity of opinion. The advocates of the early maturity system rely much upon the advantages they afford, particularly their warmth; and it is quite clear that they are more suited than open yards for finishing animals off for the butcher. However, I do not think it would be correct to assume that they are universally preferred for store animals which are to take to the pastures again, as the warmer atmosphere in them might tend to produce a finer coat and a more tender habit of body than is desirable in this class of stock. Exception might be taken thus far to their universal benefit to the farmer, but I think that any intelligent mind will see that it is far more economical to keep up the temperature in the bodies of animals, by supplying warmth in covered yards, than by allowing them to eat extra food for the purpose, and permitting the product of this to be drawn off, as it were, by the exposure of the animal frame to a low temperature.

This may be illustrated by noting the effects of exposure upon the human frame. Take, for instance, the case of two

men on a rough winter's day, one of whom, we will suppose, stays in a warm and comfortable house, and the other has a long day in the hunting field. Should they meet at the dinner-table in the evening, it would be natural to expect that the one who has taken exercise and endured exposure would eat more heartily than the other, and he would doubtless do so; but what is the effect upon the system in respect of the extra food taken? Does it of necessity produce more flesh or fat than the lesser quantity taken by the other individual? Certainly not It will be required to supply the waste occasioned by active motion and contact with a low temperature—it simply returns that which was abstracted.

This, I think, illustrates pretty clearly one of the forms of waste which goes on at homesteads where all the yards are open; and, as I think that the diffusion of scientific knowledge amongst the rising generation of farmers will not allow the practice to go on long unchecked, I recommend that convenience for future covering in any new yards should be studied and given, if the roofing is not accorded them in the first instance.

But here again we are confronted with the question of expense. Many agents will say that they are fully alive to the advantages of these yards, but cannot see their way to recommend their clients or employers to incur the outlay for them. I have experienced the same difficulty; in fact, I have never put up a covered yard at a landlord's sole expense except for his own use; but I have always impressed upon tenants my opinion that their use would return them a large interest if they expended the money themselves. They are clearly such an "extra" beyond what it is customary for landlords to provide, that it would be unreasonable to ask them to erect them at existing homesteads unless a higher rent was obtainable or other advantage

secured. To encourage enterprising tenants I have, however, gone as far as obtaining the landlord's sanction to supply the roof timbers, and the tenants have provided corrugated iron, which, I think, makes an excellent covering.

In 1879 corrugated iron was cheap, and could be delivered to stations in the west of England at £16 10*s.* per ton, which when applied put the cost at 2*s.* per yard of ground covered; and I found that light deal timbers and the cost of fixing the roof on existing walls was about 2*s.* 6*d.* per yard, making in all 4*s.* 6*d.* per yard. Each beast required an area of 15 yards, or an expenditure of £3 7*s.* 6*d.*, and as the yard might be supposed to last twenty years, the amount would be about 3*s.* 5*d.* per year. If the iron required renewing at the end of that time it could be replaced, if the price was similar, at 2*s.* 3*d.* per yard, including labour, or 1*s.* 8*d.* per beast per year. Without going into details of the saving to be effected in litter and food, and by the preservation of manure, it must be evident that a great source of profit is hereby given to the tenant, which will also ultimately benefit the landlord, so closely are their interests allied. I have not mentioned the cost of the walls of the yards as the enclosures were already formed; and in the case of all new premises, if the requisite skill in arrangement be shown, three sides of them at least will be fenced in by other necessary erections.

In recommending corrugated iron as a cheap and fairly durable covering, I am aware that some years ago one of the Fellows of this Institution, Mr. Tuckett, in an essay published in the Royal Agricultural Society's Journal, took exception to its use for several reasons, one of which was that the powerful vapours arising in houses in which stock were kept injuriously affected it. I quite agree with him thus far, that it is not advisable to use it for cowhouses or any other closely-confined places for stock; but in the case

of open shedding or covered yards, with ample ventilation at the eaves and ridge, I think it will not be open to that objection.

I have always chosen a pointed roof on timber in preference to a circular one with iron ties, because I found it could be erected by any handy carpenter, and cost less than those which had been estimated for by manufacturing firms; and in concluding my remarks upon these yards, I will merely add that, as they are so well suited for many other farm uses besides their legitimate one, they are the more desirable for introduction.

The stable will be the next building requiring consideration. This structure, beyond all others, requires careful construction, and due attention to its sanitary condition, more particularly where the horses are lodged there at night, which is much preferable to allowing them to roam in open yards in winter. Suitable dimensions, with sweetness and light, are the most important essentials required; and it is preferable that the roofing area should be available for breathing space. But where it is productive of convenience of arrangement or building economy to place another storey above it, one or more ventilating shafts should be carried through the floor of this to the roof, and a supply of ventilating bricks be given in the outer walls, in addition to the usual windows. The importance of light, from a physiological as well as utilitarian point of view, is very considerable, and it should be given unstintingly. It may save an extra half-hour of candle burning at night and morning, and will always show up accumulations of dirt and reveal any bad practices, particularly if supplied from the roof, where I always prefer giving it. The floors should be of the hardest materials, closely jointed, to render them non-absorbent; if they are not so, any amount of cleanliness

will hardly suffice to do away with the strong smells which will arise from them.

Where possible to do so, it will be generally desirable to place the stable at right angles with the food stores, that it may contribute its share towards enclosing one or more of the yards into which the manure can be cast; and one or more loose boxes in connection with the stable will be found very useful. Convenient access should be given to the main food stores and straw barn, but it should not depend entirely upon these for its supply of food, as a moderate-sized compartment for hay is required for its separate use if the same is not held in a chamber above.

The cart and implement shedding, with a tool house attached, should be placed somewhere in close proximity to the stable, to save unnecessary delay with men and horses getting away to their work; and, on large farms, a carpenter's and blacksmith's shop will be a material benefit to the farmer, who will then be able to get his horses shod and repairs done on the premises, instead of sending them to village shops, perhaps two or three miles away. The best aspect for these buildings is the east or north-east, for avoiding the entry of the powerful rays of the mid-day sun, and the driving storms from the south-west or west. For similar reasons the eaves should not be too high above the ground, 8 ft. being ample. Some portion of the space should be parted off and enclosed with doors, for the better protection of drills and other valuable implements.

The piggery must not be passed over, as considerable improvement upon the old system is needed. The usual arrangement of small styes with yards is altogether so inconvenient, and so unsuited for any other use, that it requires to be superseded by something more adapted for general purposes. The pen or box system which is some-

times used is far preferable; it entails very little, if any, more expense, and the accommodation given is also well adapted for calves or yearlings. This is an important end to be attained, as many farmers do not care to keep pigs. If a range of four or five of these little boxes—entirely covered in, of course—or a small house, divided into pens, be placed along the sides of one of the stockyards, it will help to enclose it, and the pigs can be turned in easily for an occasional run. As pigs require more warmth than any other animal if they are to thrive properly, the front of the boxes should be enclosed with a framework of fixed bars, and wooden slides, to close the openings when necessary. I have also made a practice of giving these boxes to cottagers, much to their satisfaction, as when they are without a pig they can convert them into fowl houses, or use them in many other ways. A boiling house is a most welcome addition, as it acts as a general store for pigs' food, and gives facilities for cooking a few roots, or a "casualty" carcase.

The most important buildings of the homestead have now been alluded to, but there are one or two others which require a passing notice, such as the fowl-house, slaughter-house, infirmary, and office. The former requires a warm situation, adjoining a flue, if circumstances will permit; and its qualifications should be well studied, with a view of giving encouragement to a more extensive rearing of fowls, as the profit which they yield, however small, will be welcome in these days. Fowls at the homestead will doubtless pay well for their attention and food, where unmarketable grain is used, notwithstanding the proofs which have lately been given that extensive "fowl farms" have failed. With respect to a slaughter-house, it may be said that any outhouse can be used temporarily for killing sheep and pigs, and rightly so; but if an accident happen to a cow

or bullock, as will sometimes be the case, the large amount of wholesome food which it might be made to yield is frequently rendered useless, because there is no place to be found with the appliances for hanging it up and dressing it. Therefore, on farms where stock are largely kept, it will be found desirable to give the accommodation. An infirmary is only absolutely needed in the case of infectious or contagious diseases, and, if provided specially, it should be placed in an isolated situation, out of the reach of all animals. Other cases can be dealt with in one of the loose boxes. The erection of an office at the homestead has now become a matter of considerable desirability; it is much better here than in the house, as it might form the farmer's place of retreat at odd times and on wet days, where he might have an eye upon some of the work going on. Moreover, his "occupation," hitherto a somewhat leisurely one, if he chose to make it so, has now developed, more or less, into a "business concern," involving a certain amount of correspondence, and, if properly carried out, the keeping of a set of books. An office will also serve as a store for cattle medicines and other small articles which are better to be kept in the farmer's charge. I should, therefore, recommend its introduction for large occupations.

A few words on the subject of drainage and liquid manure tanks must not be omitted, as much money is frequently spent upon these works with useless or bad effect. As a general rule, tenants will not use these tanks, but why they neglect to do so, I cannot understand. They will doubtless tell you that they value a cup of strong tea more than the leaves left in the teapot, and will make a very sensible use of it; but they fail to recognize the value of the strong decoction washed out of the manure, which they may have purchased cake mainly to enrich. On one estate I knew of eight or nine expensively-constructed large

tanks, properly fed with a system of drainage and supplied with lead pumps, which remained unused for years; therefore I would strongly recommend that money should not be wasted in constructing them, unless there be a good probability of their intelligent use. But the question may then be asked, are we deliberately to turn this stream of fertilizing matter into the nearest ditch? My reply would be, make as little as possible of it; properly trough all eaves; divert all surface water on roadways from entering the yards; use corrugated iron instead of tiles or slates for the usual shedding of open yards so as to cover in a greater area at the same expense; and apply the money which would be expended in tanks, pumps, and drainage, to covering in a still larger proportion, remembering that if a ton of manure occupy two square yards of surface—which it will do if 18 inches thick—that a ton and a half of rainwater descends upon it in the year according to a rainfall of 36 inches, which is the average in some districts. A very small tank will then suffice for the drainage from the stalls, but even this need not be collected if litter be plentiful, as it might be discharged on the surface of the yards; but I should not recommend this being done if these be not covered, as they would be rendered still more uncomfortable for stock.

With regard to drainage, if this is not carried out in the simplest and best manner stoppages will be the result, as the cleaning out of cesspools is persistently neglected by farm servants. I remember a case at an extensive homestead where it cost £40 to clean out and rearrange a complicated and ineffective system for a new tenant. The course of all drains should be perfectly straight, and run from cesspool to cesspool, as these will form places of observation for determining the exact locality of any stoppage without disturbing unnecessary ground, and give facility for inserting

a piece of fence wire from one to another for its displacement. Avoid all curves where a deviation from a direct course is imperative, by laying the pipes in two straight lines, and constructing a brick joint at the point where they meet carrying it up to the surface for the same uses; and let all pipes be 6 inches in diameter, taking care to use socketed ones when passing near the source of any supply of water for domestic purposes.

That part of the subject is now reached which is to treat of the arrangement of the several parts in a whole to form the homestead. To deal with this fully would be a very arduous task, as, for reasons too well known to require mentioning, very few farms can be found which need similar accommodation. But, in confining myself to an object within reach, it may be of some service to set forth a type or form of arrangement which may prove a useful guide under ordinary conditions and circumstances. From the experience which I have had in the eastern, western, and midland counties, I am of opinion that it is possible to do this, particularly as I find that the general objects to be attained are more similar than might be supposed. In these districts, which embrace a considerable variety of land and farming customs, I should only make very slight departures from any type of homestead I might look upon as the one most suitable for general adoption, and these departures would most likely be confined to the stock department, as it will be found that the animals are somewhat differently treated, and reared and fed in larger numbers, under similar opportunities, in the western district, than in the other two. Of course, it might happen, if the farmers' ideas were compared, that a considerable contrast would arise; but as some of them have never seen a really good set of buildings, their notions of the best way of providing for the wants of the present day need not influence to any considerable extent the

judgment of anyone who fully understands the subject. Nevertheless, other districts may present local customs which are too important to be altogether disregarded.

My ideas of the qualifications which I think this type should possess have to a great extent been given when speaking of the various departments; but, with a view of illustrating them more fully, I have placed in this room—having been kindly permitted to do so—the set of plans which I exhibited and for which I was awarded the Royal Agricultural Society's silver medal at the Kilburn Show, and another ground plan of a homestead, both being for about 400 acres, to include a fair proportion of pasture. With respect to the former plan, I should state that, although the general principles of construction and arrangement of the parts would tend to give the extended accommodation which it embodies, in an economical form, it must be regarded in a measure as a kind of "text plan," embodying all possible requirements to their fullest extent, instead of one to be recommended for general adoption. The Society itself is to be blamed for this circumstance, as the competition was for the "best" plans for farms of various sizes without further conditions.

The other ground plan I have intended should represent an adaptation of the "compact" or "block" system of building, which I think is the most suitable to recommend for economy of construction, and convenience of working operations. There are two yards covered with corrugated iron on roof timbers supported entirely by the adjoining buildings, and two open ones, with sheds, also of iron. I have not made a correct estimate of its cost, but, by cubing the contents and making a comparison with works executed, I believe it can be erected for about £2,000, or £5 per acre on 400 acres. There is one considerable advantage which the design possesses—the four yards are entirely fenced in

by the buildings, and nothing further is required to complete the enclosure beyond hanging the doors. If any other system but the "block" one be resorted to, the cost must naturally be increased, as more outer walls would be required; and there is also a considerable saving to be effected when the yards are covered in, because all the roofs of the departments for stock, where they meet in a valley, can be supported upon pillars instead of walls, filling up the spaces between with dwarf divisions of woodwork or brickwork. The sectional drawing of the first plan I spoke of will show how this can be carried out to a considerable extent, so much so, that I think the saving of cost would almost provide the iron for the roofs of the yards. Provision is made in the other plan for covering in the two open yards with little trouble, as brick piers for supporting the roof timbers are given.

I have recommended this type of building and method of arrangement in preference to any other, as I believe it to be the best for providing the necessary amount of accommodation, whatever that may be, at the least cost, and in the most convenient form for working operations; and in proportion as these ends are attained, the interests of the proprietor and agriculturist will be served.

Having dealt with the most important bearings of the subject, and with some of its details, in as extended a form as the limits of this Paper will allow, I will conclude with a few general remarks. I would recommend all land-agents who do not already do so, and all those studying to enter the profession, as far as their opportunities will allow them, to cultivate such a knowledge of building construction and draughtsmanship as will enable them to design their own buildings, or at least to have them designed under their own immediate supervision, as it is only those who are in daily intercourse with agriculturists

on their farms that can become acquainted with their aims and wants, and do full justice to the necessities of each particular case; and it will be better still if they have the advantage of possessing a practical knowledge of farming operations. A land-agent is also the only person likely to be able to look beyond immediate necessities, and introduce such designs as will anticipate any future wants, or render facilities for their introduction when the time is ripe, and thereby reduce future expenditure, for we must at all times be moving onwards, and we may be sure there will always be changes in practice, and improved methods in store, which we shall require from time to time to take account of.

I am afraid, when any new building is left entirely to an architect or builder and farmer to arrange, that the immediate wants only of the latter would be produced, which is not desirable, as they frequently run in special grooves, and lead to works which succeeding tenants might not approve of. For this reason, when an occupier of a farm asks for an improvement, care should be taken to see that it would be the most suitable addition for the homestead, otherwise the possible passing of a six months' notice to quit might be the means of bringing another tenant upon the scene who might think very differently about the adaptability of the structure for the wants of the farm. Some farmers have a speciality in shorthorns, or improved breeds of pigs or sheep, and may request that extra buildings shall be provided for these beyond what is usual and customary; but it will be well, in the interests of the proprietor, not to exceed the ordinary accommodation for these reasons, particularly as no hardship would be entailed upon such tenants if they had to supply their extra needs out of the large profits which are often realized from breeding pedigree stock.

The manifold evils to both landlord and tenant of an inadequate and badly-arranged homestead are, doubtless, now so well known that it is unnecessary to say more here in their disparagement. But, it may be asked, for the sake of making a comparison,—although the changes in agricultural practice have not, perhaps, presented themselves in so marked a manner as they have done in trade—what would be the condition of a manufacturer who had not taken advantage of every modern appliance or facility which, from time to time, intelligent minds have brought to his notice? He would probably be left behind in the struggle, an unsuccessful man, and his failure to maintain his position would have been expected, as a matter of course. Has not this been the case at many homesteads? There can be no doubt of it—and the valuable lesson should be taken to heart. I hope, therefore, that I have in a measure shown that it will be wise and profitable when a suitable opportunity arrives—I would not say that it was a suitable one on many estates at the present time—to carry out the necessary reforms at those homesteads which require them, in accordance with the best ideas of an intelligent and improving age.

I have felt considerable disadvantage in writing a Paper upon a subject which is so well known, in all its bearings, to many of those who have the management of landed property, but I trust it may be rendered more interesting by a discussion which will reveal the opinions of some of the Members present, many of whom are possessed of a large experience in agricultural matters.

In conclusion, I will quote the words of a writer in one of our best agricultural journals, who says:—"The designing "and erection of farm buildings has become one of the "most important branches of estate management; the skill "and ability displayed in their arrangement and con-

" struction exercises an effect on the progress of agriculture
" measured not by a lifetime, but by centuries."

A vote of thanks, proposed by Mr. D. WATNEY and seconded by Mr. A. M. DUNLOP, was unanimously passed to Mr. CLARKE for his Paper, the discussion on which was postponed until the next Meeting.

PAPER 109.
No. 191.

FARM BUILDINGS.

BY C. JOHN MANN (FELLOW).

Read at the Ordinary General Meeting of THE SURVEYORS' INSTITUTION, *January 29th*, 1883.

THE PRESIDENT (MR. E. RYDE) IN THE CHAIR.

BY the courtesy of Mr. CLARKE and the Secretary, I have had the opportunity of perusing, before published, the interesting Paper on "Modern Farm Homesteads," read in this room at the last Meeting, and as the remarks I desire to offer are somewhat lengthy, and of a character supplementary to Mr. CLARKE's Paper, it has been thought best they should take the form of a separate Paper.

Having been jointly concerned in the erection of farm buildings with several eminent agents connected with this Institution, I venture to think that my experience as a Building-Surveyor may enable me to contribute matter likely to prove practically useful in the consideration of the subject.

As to the general arrangement, aspect, &c., of the buildings, I agree, in the main, with Mr. CLARKE, and, as he remarks, the size of the buildings must of course depend upon the size and character of the farm. It is, therefore, quite unnecessary for me to add anything on this score.

It will be, I suppose, at once conceded that good buildings are beneficial to, though, perhaps, in somewhat different degrees, both landlord and tenant, and that such buildings should be substantial, while not losing sight of every possible

economy in their construction. The question is, therefore, first, what kind of buildings will give the most satisfactory results; and secondly, what is the least expensive way of erecting these buildings, having regard to the arrangement of plan, the materials employed, and the labour involved? And here I may observe that the Building-Surveyor or Architect, conversant as he is with builders, building materials, construction, estimates, prices, and the mode of settling up the builder's accounts, must be in a position to render valuable assistance to the land-agent in securing these ends.

I shall, probably, best consult the convenience of my audience by arranging my observations under general heads, beginning with

Covered Yards.

Covered yards are now becoming much more generally approved, and the main question with regard to them is cost. This, I find, is, in exposed situations, considerably increased by the necessity for heavy timbers for securing the covering to, with strong holding-down bolts. Where curved corrugated iron is used over a large span, the ends have to be partially enclosed, and, even with a considerable space at the top of this enclosed end, a sort of pocket is formed, which increases the risk of damage in a gale. Otherwise, curved corrugated iron should, I think, be the least expensive covering for such yards, requiring, as it does, very slight iron ties to keep it together, and no distinct truss or support except the outside plates, on wood or iron uprights. I fear some damage from rust may arise, by holes made after the galvanizing is done, but this might, I think, be got over by an improved mode of fixing. Where there is sufficient height and ventilation the ammonia from the manure would not, I think, damage the galvanized iron; and

it is an advantage with this kind of roof over the low slate or tile roof, with ridges and gutters at frequent intervals, that the ventilation is better. The lead necessary to make good work renders the latter form of covering very expensive, and great inconvenience frequently arises with them from snowstorms. The adoption of a wide span of this kind of covering, avoiding gutters, means a high roof and heavy trusses, and massive work generally, with the disadvantage of danger from gales in exposed situations. It should be so arranged that the eaves of the covered yards come well over the eaves of adjoining buildings, and sufficiently high above them to allow the use of iron eaves gutters, rendering it impossible for snow or leaves to accumulate, and giving good ventilation.

The floors of these yards should be formed with puddled clay, or well-rammed earth, or concrete, sloping towards the centre.

Unspouted Buildings and Covered Manure Pits.

When, in going about the country, it is observed how many buildings remain unspouted, being thereby rendered much less durable, and washing away the valuable properties of the manure in the yards, one is constrained to conclude that either landlords or tenants do not understand the full value of good manure, or that they are very careless and indifferent in the matter. Where a covered yard is not required, it would surely pay to erect a covered manure pit, with a tank at one end for the liquid and a pump and hose for distributing it over the manure or into carts, to be conducted to the adjacent land. The other end of the manure pit should be paved on an incline, so that the carts can be backed in to draw out the manure. The roof may, of course, be iron, slate, or tile, as most convenient, on sawn and tarred uprights.

Fatting Sheds.

I have had to erect several large buildings for fatting stock, on a plan (alluded to by Mr. Clarke) which thoroughly commends itself to my judgment. This building need not necessarily form part of any block of buildings, and any existing large old barn, no longer required for its original uses, may be readily converted to this purpose. The arrangements consist of a building, with a succession of loose boxes, formed with stout rails, having a feeding passage down the centre, and a root house in the middle. There is an external door to each loose box, the floor of each box being sunk about 2 feet 9 inches below the door sill, forming a sort of tank cemented inside, so that nothing escapes. The beasts walk into these boxes, and have as much litter as they can make into manure, gradually rising till they walk out fat. The manure is then removed with all its fertilizing qualities. The mangers are made to shift up and down, with a simple arrangement of chains and pins. The nature of the construction of the building renders it airy, and the uprights for loose boxes and mangers are carried up to the roof, thus rendering them very firm, and enabling lighter timbers to be used in the roof. This arrangement appears to me to be the most convenient and the best both for fatting beasts and for turning food into manure, with the view of again producing food.

Pavings.

Good and durable pavings, especially for the cart-horse stable, are difficult to obtain, and generally expensive. Pebble paving or pitching with hard stone is the best, but a good paving has lately been introduced, composed of the refuse slag from furnaces, mixed with cement, well scored

over before setting, to give that most important requisite good foothold.

The Staffordshire pavings, of various make, are all expensive and heavy, thereby costing more for carriage. Wood blocks on concrete could, I think, be used with advantage for some of the buildings not used for live stock. Ordinary hard brick on edge is suitable for the cowhouse, with rammed earth in front of the mangers, and wood spars for the calves. Great care should be taken that the falls are sufficient and not too sharp. All drainage inside the building should be on the surface, leading to small cesspools (as few as possible), with open gratings just outside, and from thence taken in socketed pipes to the liquid manure tank.

Silos.

It appears by the reports in the papers (*See Times*, October 20th, 1882) that ensilage is much advocated in the United States; and it has, I believe, been tried here with some success. The silo is there described as an open shed, roofed with tiles, with the floor sunk some 12 feet, the wall lined with rough stones and cement, and the floor paved. It appears to me that less expense would be incurred by having sliding doors, covered on the outside with zinc, running on wheels over each other, and fixed sloping over pits a foot or two above the ground; the pits must, of course, be watertight, and the necessity for obtaining good drainage will render these buildings very costly, unless favoured by the natural fall of the ground.

Ventilation.

I consider that the so-called "Tobin" principle should be more generally adopted in farm buildings, the valuable

advantage of obtaining air in the right place and without cutting draughts, and the ready means of regulation which it affords rendering it highly suitable, as compared with fixed louvres, which let in cold winds, snow, and driving rain, or moveable louvres, which are too liable to get out of order.

For top ventilation the ridge tiles can be raised an inch or so at frequent intervals, and where convenient, lengths of 3-inch agricultural drain pipes might be built in the external walls near the top, at a sloping angle, giving the draught an upward tendency. These modes cost next to nothing.

Water Supply.

This is a matter of considerable importance in farm buildings, and one frequently very imperfectly dealt with. Good water is necessary for man and beast, and most essential for other purposes too numerous to mention.

In the case of dairy farms, it is most important that the farmer should have a good supply of pure water near the house for the cleansing of the dairy and its utensils. The time is now happily passing away when, having found the well, we might reckon on finding the cesspool close at hand; but it is not very long since I came across an instance where impure pump-water, regarded as undrinkable, was thought good enough to be used as swill water for cleansing purposes, and recent cases in the papers prove how easily germs of disease are thus disseminated. If water is to be obtained near the surface, a well is generally the easiest and least expensive method for obtaining a supply, but it should be ascertained that the water is good and the supply permanent. The every-day labour of pumping is, of course, necessitated, unless recourse be had to the plan—which I am rather surprised is not more frequently adopted—of placing a large iron tank, supported on brick walls, over the

pump and well, and on the top of it a small windmill for raising the water to a sufficient height to supply the house and farm buildings with water by gravitation and for use with the hydrants in case of fire. A fixed ladder should be provided to give access to the top of the tank, so that the adjustment occasionally required can be readily made. The last time I visited the farm I have in mind, the arrangement described had been working for several years, entirely superseding the necessity for hand-pumping; and the total cost of the building, tank, and mill was £70. I have full particulars in a paper which I shall be happy to hand to the Secretary.*

If water is not to be found close at hand (even with the aid of the divining rod), pipes are cheap, and it can be brought a long way for a comparatively small outlay. This should be done, if possible, by gravitation, or by means of a syphon, if necessary.

If the only obtainable supply be rain-water, then, indeed, the tanks must be large both over and under ground. Overground tanks lessen the labour of pumping, but underground tanks are essential for this supply if used for drinking purposes, and, in that case, the water should be filtered. The buildings should be erected with special reference to the case where rain-water only is obtainable, and the gutters should be of special make and so arranged that the first rush from the roofs does not go into the drinking-water tank.

With regard to the supply of water to the buildings, I am satisfied that the simplest arrangement is the best, viz., large tanks placed in convenient situations as drinking troughs or for dipping pails and carrying to the adjacent boxes,

*The following are the particulars referred to:—Building, height 14 ft. 7 in., outside measure 7 ft. by 6 ft. 7 in., walls 15 inches, £23. Tank on building, 6 ft. 5 in. by 7 ft. 4 in. by 6 ft. 11½ in. deep, £35. Fixing ditto £2. Mill £10. Total £70.

&c.; these tanks to be supplied either direct from the pump or from a cistern standing, if possible, on the same level as the tanks to be filled. I have generally found that, in laying on the water by pipes to the stalls and boxes in detail, chaff, &c., is very apt to cause a block if each trough be kept at the same level; and, if not so arranged, each requires a separate tap over it, which is expensive, and there is greater liability to get out of repair by frost, &c.

The Dwelling-House.

While treating of the kind of buildings most desirable to erect, and having special regard to the advisability of keeping down the outlay, it is, I think, very essential to consider that administrative building, the dwelling-house, and here the patience, and I was going to say the ability, of the Building-Surveyor is sorely tried. The buildings must, of course, have the first consideration, and the sum first contemplated for the house is often considerably reduced by the claims of the more immediate business part of the erections. Of course, everything is relative with regard to size, but it may, I think, be useful to go into a little detail upon some points of what I would call the minimum accommodation necessary or generally required.

It seems odd to say so, but I regard the back kitchen as among the most important features of a farmhouse. To go into all the details of the arrangement of this one place would half fill a Paper. I shall content myself, therefore, with saying that the back kitchen must be large, and should have no room over it, but access from it to a man's room. The dairy, larder, store room, and cellar are all important places, demanding special consideration as to aspect, and they must of necessity be large. The kitchen also must be large, and, besides this, a parlour and a small office (which should be in the house adjacent to and commanding the yard) is

surely all the sitting-room accommodation necessary. It will be readily understood that with, say, six bedrooms, apple loft, and perhaps a bacon chamber and a cheese room, and with, say, £700 to £1,000, as the sum left for the house, it is not easy to satisfy some farmers' wives, who perhaps require dining room, drawing room, breakfast room, school room, nurseries, and bath room and watercloset upstairs, and I know not what besides. Surely the drawing room, so seldom used, and where one often sees furniture and useless ornaments going to decay, amid damp and dry rot, mice and mildew, and which all the energy of the good-wife cannot keep under, might, at any rate, be dispensed with.

No watercloset should be put inside a farmhouse, save in exceptional cases, and where a regular supply of water can be depended on. The necessary plumber's fittings, with force pump, cistern apparatus, soil-pipe, drain, &c., all properly ventilated, are expensive to put up; and when the frost interferes or something gets out of order, no plumber is near, and they become most dangerous to the inmates of the house. I have seen such closets dependent on the clouds only for their water supply, so that in summer it was necessary to carry water up to them, or suffer great inconvenience and danger to health. Earth closets on the ground floor, built out with access from the outside, for supplying earth and removing receptacles, are far less expensive, and are best suited for these houses; not to mention the value of the manure; and, surely with plenty of shed room, dry earth should be always at hand.

House Drains, Cellars, &c.

Cellars, dairies, &c., should never be so far below the ground level as to prevent complete and perfect drainage from them during winter. It is very common to find water standing in such places during a wet season; a state of

things equally inconvenient and unwholesome. Where such drains are necessary, they should be distinct from the sink and slop drain, which is the only other drain necessary (except for rain-water) if earth closets be used.

Materials and Mode of Construction.

In considering the materials to be employed and the nature of the labour required in the substantial construction and erection of the buildings at the least possible expense, there are several points too frequently overlooked, to which attention may be called. It is of primary importance to ascertain the various materials *most accessible* and the *best* that can be obtained in the district of the proposed buildings, whether bricks, stone, cement, slates, tiles, timber, concrete, iron, the kind of pavings, &c., having regard also to the distance and convenience of carriage, and the selection of the time most convenient for the tenant, if, as is generally the case, he is to do the haulage. This is often a great grievance, and the utmost pains should be taken to enable both builder and tenant to come to a clear understanding on a point so often an important item in the cost.

In most parts of the country may be noticed many details of construction more or less peculiarly associated with the district. It is very desirable to note facts of the kind and adopt them as far as possible, unless there be anything manifestly wrong in them. For instance, what numerous ways there are for doing barn-floors—asphalte, concrete, cement, stone, slate, brick, wood, &c. My experience is that the kind generally adopted in the district is the kind one can get done best. It is rather surprising that the weather or upright tiling, so general for upper parts of buildings in Kent and Sussex, is not more widely adopted in other counties, seeing how lasting and inexpensive it is; upright

slating, if not picturesque, makes very good and durable work. Some kinds of cement for the outside walls on the ground-floors might be used with advantage where good bricks are not to be had at a moderate cost.

Concrete buildings are well done in some parts, but at present I do not think much saving can be effected by their adoption. Weather-boarded buildings, well tarred, on brick bases, about 2 feet above the ground, are inexpensive in some places, and make good substantial structures. Some of the old stud and mud buildings, now gone to decay, must have stood and answered their purpose for many years for a small outlay, and it is open to question if many buildings now being erected will last much longer.

Straw thatch is certainly rather out of my line, but reeds I have had some little experience in, and, where they can be readily obtained, I should consider them a very satisfactory covering.

Corrugated iron might, I think, be much more used, not only in roofs, but in sides of farm buildings, than is at present the case; and iron generally may be more suitable, treated with the Barff process for preventing rust; but at present this process is rather in its infancy, and cannot be said to have stood the test of time to the same extent as galvanizing.

Ironmongery is difficult to get really good and strong, unless made by the village blacksmith to full-size drawings. The abominable rubbish sometimes provided, as good, strong ironmongery, is simply marvellous; and here I would remark a little difficulty that frequently happens with local country builders—indeed, with all builders, more or less. They do not seem to think you mean exactly what you write in the specification, and imagine that a little roughness in a farm building is not of so much consequence where there is such rough usage as cattle, horses, pigs, &c.,

are likely to give; but I would impress upon all those superintending the erection of farm buildings to be most particular in every little detail, as, if a stay is not where it should be, or a door is not properly hung, a gust of wind may come, and cause a wreck; in fact, although surface finish may not be so necessary, every portion should be perfect, and act as satisfactorily as possible.

I should be glad to know if there are many instances of the satisfactory use of corrugated iron as a moveable covering for hay. It is, I know, extensively used as a covering for fixed hay barns, but I doubt if it be good to allow it to rest on the top of the hay, secured to the sides by ropes and pins; it can be more satisfactorily shifted up and down on fixed uprights.

If hay may be taken up wet and afterwards dried by fans—and, in spite of some failures, it appears that it may be—it will probably lead to a modification in these shelters.

Space slating should never be used for roofs, as they suffer so much in a gale of wind; in fact, not only in selecting the site, but in the erection, care should be taken to avoid giving opportunities for damage of this kind. I find it very difficult to keep country builders to time in completing buildings. Delay is occasionally increased where materials and workmanship not generally known to the locality are specified, and the costs are thereby much increased. Sometimes a builder says he cannot get men to go to such an outlandish place, and sometimes the public-house is too near.

In the remarks I have ventured to add I have not intended to offer any criticism on Mr. Clarke's Paper, feeling sure that the consideration of the subject will be rendered complete by the Members of this Institution in the discussion which will follow.

Mr. E. P. Squarey (Vice-President) said that the authors of the two Papers which had been read had both contrived, though dealing with the same subject, to present interesting and instructive points for the consideration of the Institution, and he had much pleasure in cordially thanking both gentlemen for their excellent contributions to the "Transactions."

In these days he was afraid that architects of farm buildings had a rather bad time of it. The expenditure of capital in a direction not immediately productive of profit, or attractive to tenants, had fallen to a certain extent into disfavour. This was to be regretted, but, on the other hand, adversity had its uses, and among other lessons which the existing distress had taught was the desirability of preserving as far as possible all existing buildings (which could frequently be done at a very small cost) instead of rushing into extravagant expenditure for the mere sake of securing uniformity and supposed economy and convenience in the management of cattle, horses, and pigs. If one fact was more clear to his mind than another, after 25 or 30 years' connection with land, it was this, that it was extremely unwise for agents or owners to suggest the erection of buildings unlikely to be thoroughly appreciated by the tenants for whose use they were provided. It might be extremely desirable that there should be example buildings in the district, but to cover a large estate with buildings in excess of the ordinary requirements of the district, and erected at a cost representing perhaps one-fourth or one-fifth of the value of the fee-simple of the farm, and in respect of which the tenants could or would contribute nothing in the shape of interest on the outlay, was an act of imprudence of which, he hoped, no one in these days would be guilty. These were, perhaps, rather discouraging views to advance, but he felt that a body like The Surveyors' Institution should bear

the fact in mind that although new buildings such as Mr. CLARKE or Mr. MANN would erect would undoubtedly conduce to the economical working and management of farms, and would enable a large amount of improved manure to be made, expensive erections of the kind suggested did not add, except in minor degree, to the productive capacity of the farm. He thought, therefore, that every intending builder of a homestead should pause ere he allowed any new fancy to weigh with him. As agents, they should aim at putting up such buildings as would be used, as far as possible, day by day by the tenants, and that in the most economical fashion.

He was glad to hear the reference, in Mr. MANN's Paper, to the use of wood pavement for sheds. It was only a few months ago that, seeing in the timber yard of a large estate of which he had the supervision a lot of timber, the boughs and off-cuts of elms, oaks, and other varieties of trees, which were practically useless for any purpose but fuel, it occurred to him that they might be used in place of brick pavement for their large cow stalls. This had accordingly been done, and the buildings had now been in use for two or three months, and, so far, the plan had been a success. He regretted that he had not with him the figures showing the actual cost; but he could state that, debiting the estate with the timber at about 6*d.* per cubic foot (and he did not think in the market it would fetch anything like that sum), there was decided economy in the employment of the wood for the purpose, and it had proved far cheaper than the bricks of the district, and, so far, the cattle had been most comfortable. There had been no sinking of any part of the pavement, and the moisture kept the timber so effectually swelled that not a drop of it passed down on to the concrete on which it was laid. The time the floor had been down was too short to found any

definite conclusion on the subject, but he was glad to find that, so far, his experience confirmed the recommendation of Mr. MANN on this point.

He quite agreed with Mr. MANN's remarks as to the employment of windmills as a source of power for pumping water. During a recent visit to America, he had been much struck by the extent to which wind was utilized in that country for motive-power. Passing through Illinois, Missouri, and other States, as far as Colorado, which formed the furthest westward point of his journey, he found windmills wherever there was a homestead.

Mr. F. CHANCELLOR (Fellow) said there could be no doubt of the importance of the subject that had been brought before the Institution by Mr. CLARKE and Mr. MANN, more especially at a time when it appeared that landlords could scarcely get anything like rents for their land, much less any interest for money outlay. Whether, as Mr. CLARKE indicated in his Paper, those men who had been fortunate enough to have good buildings had been able to weather the storm better than those who had bad buildings, was a question which, in the presence of so many gentlemen better able than he to discuss the matter, he would not venture to dilate upon. He would apply himself, therefore, to the practical part of the question, with which he was more intimately acquainted.

The question naturally divided itself into two heads. First, the re-arrangement of old homesteads, and secondly, the erection of new homesteads. It had been his fate to be called in to advise on a great many of these old homesteads, and he frequently found there was an old barn which had been strongly constructed—perhaps in not very good repair—but which would form the nucleus of a fair homestead. It would often be found that a barn of the kind, if divided,

and with the addition of a loft floor, would serve as a good building for machinery, and for such purposes as the storage of roots, chaff-cutting, mixing places and the like; and in front of it might be put any necessary buildings. He had in his mind, indeed, two cases where he had converted, in the manner referred to, a barn measuring about 150 feet in length by about 50 feet in width, something like a huge parish church with nave and aisles, and, perhaps, covering as large an area as all the cottages in the village. In those two cases the principals were about 15 feet apart, and, by putting floors halfway up, he managed to create a very good homestead out of the old buildings. If he had erected new, they would probably have cost something like £1,000, while the repairs of the old barn, and the alterations necessary, did not probably cost more than £300 or £400.

Then came the question of what was best to be done where, perhaps, owing to a fire, or, from the necessity of having a new site, it was necessary to erect a new homestead altogether. Attention had been directed by Mr. CLARKE to the fact that the requirements of the farmer in the present day were very different from what they were a good many years ago, and he thought there could be no denying that the increased rearing and feeding of stock, threshing by steam machinery, and the culture of roots had necessitated a complete change in the arrangement of the plan of farm buildings in modern times. The days of huge barns had evidently gone by, and he did not suppose that anybody would now think of erecting such barns as were put up 100 or 150 years ago. The suggestion which Mr. CLARKE had made as to the arrangement of a homestead, he was disposed, in the main, to agree with. Having erected something like forty or fifty covered homesteads, aud remodelled and re-arranged as many other homesteads with open yards during the last 35 years, he had had his attention

directed very considerably to this subject, and he was bound to say, after a good deal of thought and experience, he did not think there was any homestead equal to a covered homestead. It was, therefore, to that form of building that he proposed to direct his remarks.

The first point for consideration was aspect—a point of the highest importance. He believed the best aspect for stock was S.E. by S. A cattle shed with a northern aspect was not worth the tiles that covered it.

In a new homestead there should be a two-storied building on the north which should contain the necessary arrangements for machinery, because, without machinery, in the present day, the business of a large farm could not be carried on. It should contain the root stores with mixing places, a good winnowing or dressing floor, with granaries attached, and over all a large loft for hay and straw with wool stores, and other accommodation of the kind. It should also contain, if possible, because it had a northern aspect, implement sheds and cart sheds, with loft extending over them. In many of the covered homesteads he had erected he had also included a straw loft, running at right angles from the centre of the back building through to the front, affording a very convenient arrangement for the distribution of straw to the yards below. To the front, south of these two-storied buildings, should be placed the covered yards for stock—he was speaking now of neat stock. He thought the best arrangements that could be adopted for that purpose was to divide the area into yards sufficient to hold about ten beasts. The size of the yard should give one or one and a-quarter squares to each bullock, according to the size of the animal. A polled Scot might very well be accommodated on a single square. Larger beasts would require a little more, and smaller beasts a little less, but, on the average, it would be some-

thing like a square to each bullock, so that a yard of 50 feet by 25 feet would well accommodate ten bullocks. Care should always be taken to give a sufficient length of manger so that each bullock might have 4 feet to himself. As to the yards, of course according to the number of stock required to be housed, so should be the area covered in. When he first commenced to erect these covered yards, he inclined towards keeping the whole south front open under a sort of notion that they would otherwise be close and stuffy, but he had gradually come to the conclusion that this was unnecessary, and at the present moment he should not hesitate to enclose the whole front. One thing, however, should be guarded against in a covered yard, and that was draught. If there was an opening on the south, and an opening at the back or side, it was fatal to the utility of the yard. He did not mean that there should not be ventilation, but it should be from above and not across the yard.

The next arrangements requiring attention were those affecting the horses. He had, he thought, found more diversity of opinion amongst practical men as to the best mode of dealing with horse arrangements than as to any other point. He had constructed covered yards divided to accommodate four horses each, and some for two horses each, and others with boxes for single horses. He had also constructed sheds with open yards in front divided off for pairs of horses, he had also arranged a portion of covered homestead as paved stables with yards attached; in fact, he had carried out almost every conceivable arrangement, but he had rather come to the conclusion, and he thought it was the conclusion of a good many practical men, that the best arrangement was a stable enclosed from the other buildings, *i.e.*, built on the eastern side of the covered homestead, but so attached to the homestead as to afford facilities for feeding and the disposition of manure.

Then, again, as to the pigs. He had come to the conclusion that they should be away from the stock, though not necessarily in separate buildings. These buildings might have access from the main building by a doorway, but it should be outside the covered homestead, and it was very important that they should have a southern aspect.

As to sheep. He did not know that there was any better arrangement than a yard with a low shed on three sides; but as regarded fatting sheep he had a strong opinion that the best arrangement for them was in pens in the covered homestead to contain about ten each, reckoning that five sheep would go to a square, so that a pen of 200 square feet would hold ten sheep, with pits underneath, two or three feet in depth, with latticed floors over. He had constructed many of these, and he believed they had been found to be very successful.

With regard to implements, he rather took exception to the position of the cartshed on Mr. CLARKE's plan, which he saw was due south. That space would be much better occupied by animals of some description.

Having disposed of the general arrangements of the buildings he would now come to the construction of the buildings. This must, to a certain extent, depend on the locality. In his own county (Essex) he did not think there was anything so good as brick walls for the general construction, and, as regards the roof, he had gradually settled down to the opinion that there was nothing better than a fir timber roof boarded and slated. He was well aware that pantiles were warmer in winter and cooler in summer; but the vexation of spirit he had to undergo in the way of repairs from their being blown off by gales, and their propensity for letting in water had almost made him register a vow that he would never put another pan-tile on a building. If he did use pantiles, he would prefer the corrugated tiles

which were made large and massive and fitted very closely. Corrugated iron he did not believe in for homestead roofs. He had on many occasions tested the comparative cost of iron and other kinds of roofs, and he had always found them come as expensive, and in many cases more expensive, than the ordinary roofs. He had recently looked into the question again, and he found that a shed sixty feet by twenty feet could be supplied with a galvanized roof at a cost of £48. That was £4 a square, without labour of erecting, which would bring it to something like £5 a square. He would undertake to cover the same area anywhere in the neighbourhood (the county of Essex) with slate, at the same price. If he used tiles, he could get it done at something less, but, under the circumstances, he should give his adhesion to timber and slate rather than to timber and iron.

With regard to flooring, he had found that for root houses and so on, there was nothing much better than the agricultural asphalte cement: if it were properly selected and carefully laid down it made an excellent floor; but it required a little more care and skill on the part of the workman, and a little better quality in the article than could always be ensured. One of the most difficult things to deal with was the proper manipulation of cement.

He had been impressed by the remarks made by Mr. Squarey with reference to timber pavings. He had many times tried to get a wooden floor, but had never succeeded on account of the cost. He thought Mr. Squarey had put the cost rather low. Taking an area of nine feet square—it could not be less than six inches thick—the quantity came to 4 ft. 6 in. cube. He did not think one could get the timber and sawing at one shilling per foot, but put it at one shilling —which was a low price—that would be 4*s.* 6*d.* Then there was the concreting and the labour of laying, bringing it up to six or seven shillings per yard. Owing to the

reduced price of articles and of railway carriage, the Staffordshire bricks now competed with paving bricks, and he had scarcely used anything else for stables and places of that kind. The blue Staffordshire brick would certainly last three or four of the ordinary bricks of the country, and even if they cost a little more in the beginning, they were cheaper in the end.

As to floors for piggeries. He had heard many remarks as to the unhealthiness of asphalte floors, and he never used it now for that purpose if he could help it. He had been cautioned against its use, and in one or two cases, where the animals did not get on well, the floors were taken up and brick floors substituted, with results beneficial to the health of the animals, so that he supposed there was something in the theory.

The next point that seemed to require attention was the cost, and that probably was the most important point in the present day. When he commenced about thirty-five years ago putting up these buildings, he used to do them easily at £10 a square, the walls, roof, and fittings all included. They got up gradually to £12, and at the present moment he did not think he would care to undertake to do one for much less than £15 a square, and that, he believed, was a fair estimate. He thought Mr. Clarke had rather underdone his estimate in that respect. He saw, on measuring his plans, that they represented something like 190 to 200 squares, and he had put the cost at £2,000, which was very little more than £10 a square. He felt satisfied it could not be erected complete much under £2,400 or £2,500.

The last point he would call attention to was drainage. He agreed with Mr. Clarke in deprecating an expensive system of drainage. He believed a tank put in the centre of a covered yard would not collect a gallon of liquid manure in a week, and in his opinion all money expended

in that way in covered yards would be wasted. Care should be taken in arranging buildings in respect to the drainage of those portions which were paved, but the great secret of making covered homesteads successful was littering little and often. It was infinitely better to put down a little straw every day, and manure would be formed more rapidly than if a huge quantity were put down once a week. If properly constructed, the yards should be excavated to a depth of two feet or two feet six inches, and if it were properly made, when the top layer was taken off, the rest would come out like black butter, which, he believed, was the sort of material that farmers delighted in. In conclusion, he felt personally much obliged to the authors of the Papers for the exhaustive manner in which they had gone into the subject, which was one requiring their special attention at the present day.

Mr. P. D. Tuckett (Fellow) said that rather more than twenty years ago he spent a good deal of time in examining most of the best then existing farm buildings in various parts of the country, including a number of those designed by the late Mr. Beadel and by Mr. Chancellor; and on the Yorkshire Agricultural Society offering, in the year 1861, two prizes for the best designs for farm buildings for farms of two different acreages, he (Mr. Tuckett) prepared two designs for covered homesteads, one of which obtained the first prize, the other being placed second and "highly commended." When those designs were published, he added a very short introductory essay explaining the chief benefits claimed for the covered system, a system which he heartily joined Mr. Clarke in advocating, as he fully believed in it then, and did so still. As their principle had not yet been very clearly brought out in the present discussion, he would say a few words about

it. It was not merely covering over a space with a roof, which made what is understood as a covered yard, but, as Mr. CLARKE's Paper explained, the bottom was excavated in a dish shape to a depth of 2½ or 3 feet in the middle, so that there should be no drainage, and the straw being gradually supplied little by little every day, just enough to keep the cattle clean, and trodden down by them, filled up the yard in from 2½ to 3 months with a hard, compact, air-tight mass which had absorbed all the liquid manure, but remained just dry on the surface. The yard thus required emptying only twice in the season. It was necessary to the successful use of such yards that a few simple conditions should be strictly adhered to.

The number of cattle in each yard must be properly proportioned to its area, and if there were not enough at any time for all the yards, one must be filled and the others left empty. It did not answer to have all half filled. When properly worked, the straw was perfectly saturated with the liquid manure, without the addition of any rain, and produced a result which was exceedingly different from ordinary farmyard manure.

The advantages claimed for covered homesteads were—economy in feeding stock, economy in making the manure, and, from their much smaller space, economy in labour. As all knew, by far the largest portion of the food of any animal is spent in maintaining the heat of the body, and only a small part in adding to its weight, or, when an animal is chiefly resting, or only moderately exercised, in repairing the tissues. It seemed to follow that, if an animal could preserve its health under cover as well as in the open, it must require far less food to keep up its animal heat, it being protected from the cold, and would therefore be likely both to grow and feed more rapidly, on the same food, in contrast to the half-starved young stock which one sometimes saw going

through the winter out in exposed situations, and coming out in spring in worse condition than they were in, in the autumn; and there was no doubt that animals in a covered yard grew and increased in weight with a less quantity of food than in open yards.

He remembered a thorough practical farmer telling him he could fat twice as many sheep in his covered yard off an acre of swedes, as he could feed on the same quantity in the field.

Then as to the manure. A good deal had been lately heard about *ensilage* and *silos*. Manure trodden down in a covered yard, in the way described by Mr. CHANCELLOR just now, was really treated very much in the same way that green produce was treated in these silos; for both were preserved by the exclusion of the air. The covered yards, with two or three feet of manure, were perfectly sweet, and there was no smell whatever from them, so long as they were undisturbed; but directly the air was admitted during the process of putting the manure into carts, a very pungent odour was emitted. If litter be supplied too rapidly, so that it does not all get saturated, it was apt to become a little disagreeable; while, if too little be used, the cattle were not kept clean; so the supply had to be regulated, to ensure a perfect result.

At the time he had mentioned, he made some attempt to estimate the extent of the economy of straw and manure in covered yards; and from a number of data which he then gave, but would not now trouble the Meeting with, he found that a cubic yard of manure taken out of a covered yard was worth at least twice as much as one taken from a well-constructed open yard, and far more than twice as much as one made in a badly-constructed yard.

He supposed that a beast fed during the whole winter in a covered yard converted about 3 or 4 tons of straw

into about 16 cubic yards of manure, which, put at 7*s.* a yard, moneyed out at	£5	12	0
And that a beast fed in an open yard converted about 6 or 8 tons of straw into about 24 cubic yards of dung, which, supposing it to be good, and put at the very full price of 3*s.* 6*d.* a yard, amounted to	£4	4	0
Showing a saving in manure of . . .	£1	8	0
And a saving of the value of 3 or 4 tons of straw, which, put at a moderate foddering price, would come to, say, an additional . .	£4	0	0
Making a total difference of about . .	£5	8	0

It was very difficult to arrive at accurate figures in such a subject; but there was, no doubt, a very large saving in straw as well as a largely-increased value in manure; and an extra profit of £5 on each winter-fed beast would alone more than pay interest in the case of a new homestead, to say nothing of the saving in food before alluded to.

In his very interesting Paper, Mr. Mann spoke of a covered building of the same kind divided into boxes. That was a plan which was tried a good deal many years ago, but he had known some filled up again solid, and others thrown together into yards or otherwise converted. The great objection to that plan was that the manure was not well made in the corners. If straw put down in a covered yard did not get properly trodden down, it was apt to get mouldy and disagreeable. A covered yard of 1,000 superficial feet would be evenly trodden all over by 10 beasts, but, if divided into 10 separate boxes of 100 feet each for a single beast, there were four corners in each box which were never properly trodden down, and in the aggregate they

formed a material portion of the whole surface, and the manure was not made as well as it should be.

He (Mr. TUCKETT) had not had sufficient opportunity of examining Mr. CLARKE's drawings to discuss the architectural details on this occasion. Probably, if there had been time to go into detail, some advance might be found as to the economy of materials used, and so on. The designs seemed to be a good deal on the old lines as to the main features of arrangement, the relative position of the principal departments, and so on; but in some respects he (Mr. TUCKETT) was almost tempted to think that, upon a comparison with some of the best homesteads that had been built 20 or even 30 years ago by the late Mr. BEADEL, Mr. CHANCELLOR, and one or two other pioneers in this department, there would not be found much evidence of progress during that period, though, no doubt, the use of improved buildings has become far more general, through the efforts of those who, like Mr. CLARKE, had continued to advocate these improvements. In particular, he could not understand the cartshed exposed to the sun in the south front of the lithographed ground plan attached to Mr. CLARKE's Paper, in spite of the very proper recommendation in the Paper itself, that cartsheds should be open to the north. He was also hardly prepared to see the south side of a covered yard completely masked and shaded by the shelter shed of an open yard placed immediately to the south of it. He had always been accustomed to think that a covered yard should be open to the south, to admit the sunlight, and preserve a neat and tidy elevation; and in cases where some open yards were also deemed requisite, he should have preferred to see them elsewhere. There was an ingenious contrivance, which he had first seen in a homestead built by the late Mr. BEADEL and Mr. CHANCELLOR many years ago, which he thought worth mentioning, and that was a straw

loft or platform over the middle of the cattle yards. It was a device for saving labour by running out a narrow platform from the upper floor of the barn building, and at right angles to it, under the middle roof of the covered cattle yards, with a door at the south end. The sides of it being quite open, but elevated above the yards, a man with a fork could walk along it and throw the straw at one throw to any enclosure of the cattle yards, thereby saving all the trouble of dragging straw about from one place to another; and the straw could be introduced either from the barn at the north end or from a waggon at the south end, and a few days' supply taken in at once.

As to manure tanks which had been treated of, he quite agreed with Mr. CHANCELLOR that if the homestead were constructed on right principles there would be no occasion for manure tanks. Even in a well-constructed open yard, having a shelter shed equal to one-third of its area, as suggested by Mr. CLARKE, if the yard be well dished out, and all the buildings spouted, there should, except perhaps in the case of exceptionally heavy storms, be no overflow of liquid manure, evaporation getting rid of the excess of moisture; and it was much more economical to have the liquid manure absorbed by straw than to incur the labour of pumping it into a manure cart and then distributing it in a very bulky and diluted form.

Now, as to the use of corrugated iron for roofing. Mr. CLARKE, in his Paper, recalled the fact that in a Paper he (Mr. TUCKETT) wrote for the Council of the Royal Agricultural Society, in 1866, he had reported unfavourably of it. It might be well to mention that the subject of the Paper in question was—"The comparative cheapness and advantages "of Iron and Wood in the construction of Roofs for Farm "Buildings," and that the Paper dealt, perhaps, more fully with roof construction than with roof covering. But he

certainly did write unfavourably of corrugated iron, and for the following reasons:—That the coating of zinc which galvanized iron received was scarcely ever so pure and uniform as wholly to prevent rust, and that leaks usually occurred in places after a few years, which gave a great deal of trouble. That its liability to expansion and contraction tend to render buildings roofed with it liable to get out of repair. That it was difficult to insert skylights, if required; and more especially that being a good conductor of heat, it was very cold in winter and hot in the summer. And last, though not least, that it was so ugly. The Paper gave some calculations which showed that, at the prices of the day, a good corrugated iron roof would cost very nearly what Mr. CHANCELLOR had just mentioned, and about as much as a pantiled roof.

Thus he made the cost per square of floor space to be covered as follows:—Of a thoroughly good slated roof, complete, about £5 13*s.*; of a pantiled roof, £4 9*s.*; of a galvanized corrugated iron roof, £4 10*s.* 6*d.*; of a roof, covered with Croggon's felt, from £2 10*s.* to £3.

At those prices he thought there could be no question that corrugated iron was not an economical material to employ, considering its obvious disadvantages as compared with slates.

But now Mr. CLARKE declared that an efficient corrugated iron roof could be put up, complete, at 4*s.* 6*d.* per yard of ground covered, which would be about £2 10*s.* per square, instead of £4 15*s.* That was a very important difference, and one that would make a great difference in his (Mr. TUCKETT's) opinion. No doubt, iron was considerably cheaper in 1879 than in 1866, but, still, 2*s.* per yard of ground covered, which, allowing for the curve, or slope, of a roof, would be rather more than 1*s.* 6*d.* per yard of material used, was a very low price, and the weight stated showed that the sheets were very thick. His estimate for timbers

and fixing a thicker and heavier quality had, he saw, been about 4*s.* per yard, against Mr. CLARKE's 2*s.* 6*d.* If so light an iron roof as Mr. CLARKE proposed would really wear well, no doubt it would materially lessen the expense.

He must acknowledge that there was a good deal in what Mr. SQUAREY said about the necessity of consulting the wishes and even the prejudices of tenants and the pockets of landlords; and the experience of the last 20 years showed him how very seldom one had the opportunity of building anything like a model homestead or a complete new set of farm buildings. It was generally a question of improving and adding to old buildings and of making money go as far as possible, and although he had built some covered homesteads, he had very much more frequently been obliged to content himself with much more moderate improvements on existing arrangements.

He was also sorry to say he had occasionally seen, on going over a property, a covered homestead applied to anything but the purpose for which it was intended by some occupier who would not take the trouble to learn how to use it, and then spoke unfavourably of it. But he believed those who used covered homesteads properly always spoke very highly of them.

Mr. W. J. BEADEL (Vice-President) had much pleasure in moving a vote of thanks to Mr. MANN for his excellent Paper, which formed an extremely useful and practical supplement to that read by Mr. CLARKE at the last Meeting.

He did not propose, at that hour of the evening, to do more than offer a few general remarks. First, he might observe, with reference to the plan propared by Mr. CLARKE, that he feared it would be very ugly in elevation. One great defect of Mr. CLARKE's plan was that he had placed

his covered yards next to the barns, as far as possible away from any ventilation. The position also of the cartsheds, offices, stores, coach-house, and stabling was such that they could hardly fail to be rather unsightly in elevation. His experience convinced him that the south front of a covered homestead should be left as open as possible, and that no buildings of any sort or kind should be placed in advance of it. If the yards were roofed with anything but slate, the constant repairs required became a most intolerable nuisance. Pantiles were a perfect abomination. One of his buildings had been roofed with this material for the last fourteen or fifteen years, and he had little doubt that after the gale of the previous night a square or more of it would want retiling. Beyond that, pantiles were never water-tight, and although the work had been done under the able superintendence of Mr. CHANCELLOR, they had been a source of constant inconvenience from this cause. He might mention that on one very large homestead, on an estate under his management, the owner had gone to the expense of taking off the tiles and substituting a slate roof.

Corrugated iron was not adapted to buildings of the kind. It was useful for hay-stores or manure-pits, but was quite unsuitable for covering a homestead, or for a permanent building of any kind.

It was no doubt the case that manure made under covered homesteads was of a much more valuable character than if made in the open. He agreed that, where 15 or 20 beasts could be put together in one yard where the animals could walk about freely, the manure was more valuable than when the beasts were isolated in smaller yards. He also agreed with what had been said with reference to the uselessness of manure tanks under covered homesteads. In his covered yards, under one series of roofs, there were something like 60 head of cattle all fed upon cake, and

all under cover. A manure tank under either of those yards would not, he believed, collect a particle of liquid manure. He had tried it, and found that the straw put under the animals absorbed every drop of moisture that came from them. He was convinced, therefore, that any expenditure on manure tanks in covered homesteads was money absolutely thrown away. In an open yard it was altogether a different thing.

Allusion had been made to young stock and fatting stock. It was necessary to the successful management of young stock to be very careful in spring. If the animals being fatted went straight from the covered yard to the butcher, it was of little consequence if they caught cold in transit; but it was wiser (and the hint might be useful to the younger Members of the Institution) not to fat cattle in yards in winter, but to keep a greater head, and get a growth of young stock, and fat them on pasture land in summer, with a proper amount of artificial food. It would be found a much more remunerative way of treating stock than by crowding animals together and fatting them with artificial food, in order to sell them in the months of March or April. The coats of young stock kept in covered yards got thin, and the pores of their skins open; and if taken out after being in the yard from the 1st of November to the 1st of May, and put into the pasture, however good it might be, they would probably get pleuro-pneumonia or severe colds, and very likely many of them would die. His experience was this, and he had carried it out for some years, and had not lost a single animal from it, that the best mode of management was, say on the 1st of April to the 1st of May, to turn the stock out into the open yard in the daytime, and back into the covered yard at night; the next fortnight, to turn them into a field close by the homestead in the daytime, and bring them back into the open yard at night; after which they

could be turned out in the pastures without risk of injury to their health.

To sum up the advantages of covered yards. In the first place, they were most economical; secondly, stock never did so well as under buildings where they were protected from the elements; and, thirdly, one load of cake-fed manure, under a covered yard, was equal to three or four loads produced in an uncovered yard.

He had a loft of the kind referred to by Mr. TUCKETT. It was, to his mind, the most useless thing he ever possessed, and he would not advise anybody to spend sixpence in putting a loft at right angles to the barn for the purpose of enabling a man to walk out and distribute straw to the yards.

Mr. T. CHATFEILD CLARKE (Fellow), after seconding the vote of thanks to Mr. MANN for his Paper, observed that, while listening to the remarks which had fallen from Mr. TUCKETT, he could not help thinking how many improvements had been made in the planning and construction of farm buildings during the 20 years which had elapsed since the time to which that gentleman's remarks applied.

With regard to a remark of Mr. CHANCELLOR'S, he might mention that he (Mr. CLARKE) had used cement in farm buildings, and had found, with him, the great difficulty of laying it without cracking, and in such a manner as to keep it smooth and even. There were one or two points with reference to which he did not agece with Mr. MANN. For instance, Tobin's tubes were comparatively useless in places where there was no fire or draught, the principle on which they depended being the taking of fresh air upwards toward the ceiling, diffusing it again gently over the room, and drawing off the carbonic acid of the respired air, through suction on the low level such as a fire provided.

Again, as to the dwelling-house, he did not think it would be wise to suggest that the modern farmhouse should be without a w.c. The requirements of modesty and the social position of the farmer alike entitled him to a convenience of the kind within the house.

Mr. MANN explained that what he said was, that an upstairs w.c. should not be provided unless a constant supply of water could be ensured.

Mr. CLARKE (resuming) accepted the explanation, but had not so understood the Paper. His experience of earth closets was that, unless very carefully attended to, they were a very great nuisance, and for this reason he should hesitate to advise their adoption.

He hoped that the gentlemen present would not favour the employment of a large amount of cement on the outside of farmhouses, as there was nothing that tended more to deprave public taste. It was not necessary for good work, because Mr. MANN himself had, just above, suggested what was so pretty, adaptable, and dry—the tiled hanging of the gable and other portions of the farmhouse. Upright slating was an abomination to look at, and he urged his friends not to employ it while tile-hanging was so easy to apply. As to thatching, the great danger arising from its use must be within the experience of many in the room. He would suggest, what was not mentioned in the Paper, namely, a more extensive use of double walls in buildings in the country. The difficulty alluded to in the Paper, of getting builders to work up to time, was not peculiar to country builders. It was a difficulty everywhere met with.

He saw no reference in the Paper to cottages, a point on which he would like to say a word or two. He had recently built several cottages in connection with farm buildings,

and he had always endeavoured to provide a fair living room, a fair kitchen, and at least three bedrooms; but he found that, although Mr. MANN was so anxious to cut off the farmer's wife from a withdrawing room and a little parlour, whatever it might be, labouring men were not content with the accommodation he had mentioned; they now required a parlour, a kitchen, and wash-house. The kitchen to live in, the outbuildings for various purposes, and the parlour for very occasional use. Therefore, if one gave the labouring man that accommodation, he felt that enlarged accommodation should be given to the farmer and the farmer's wife. He had much pleasure in again expressing his obligations to Mr. MANN for his Paper.

THE PRESIDENT said that he had omitted, by inadvertence, to call upon Mr. DUNLOP, who had moved the adjournment, to resume the discussion on the present occasion. He would therefore move the adjournment of the discussion to the next Meeting, to afford Mr. DUNLOP an opportunity of expressing his views should he desire to do so, and in order to enable the authors to reply more fully to the criticisms offered on their Papers than time permitted that evening. He trusted that before the discussion was concluded some practical Surveyors would favour the Institution with figures showing the cost per acre at which suitable buildings could be erected on farms of various sizes and descriptions. Information of the kind would be very useful if recorded in the "Transactions" of the Institution.

The Meeting then adjourned.

No. 192.

AT

THE ORDINARY GENERAL MEETING,

Held on Monday, February 12th, 1883.

MR. W. J. BEADEL (VICE-PRESIDENT) IN THE CHAIR.

The adjourned discussion on the Papers entitled "Farm Buildings," by Mr. C. JOHN MANN (Fellow), and "Modern Farm Homesteads," by Mr. C. D. CLARKE (Fellow), was resumed by—

Mr. J. MARTIN (Fellow), who said that the Members were under obligation to Mr. CLARKE and Mr. MANN for the excellent Papers under discussion. He saw, on page 110 of Mr. CLARKE's Paper, a reference to the notorious Kilburn Competition. He (Mr. MARTIN) was one of the unfortunate exhibitors on that occasion, and he had a very clear recollection of what happened. There were sixty-eight competitors, and the report of the judges was that not one of the designs was good enough for a prize, only six worthy of commendation, and one of high commendation. This caused great dissatisfaction amongst the competitors and the profession generally, and the grievance was well ventilated in the newspapers. He believed, however, that the Royal Agricultural Society afterwards gave Mr. CLARKE a silver medal, but he thought it a great pity they did not give the prizes they offered as an inducement to competitors to be at the serious trouble and expense of preparing designs.

To return to the subject under discussion, he had tried yards wholly covered, two-thirds covered, and one-third covered, and the conclusion he had come to was, that wholly covered yards were only to be preferred for fattening cattle

and for young cattle under one year old. This was without taking into account the additional value preserved to the manure by covered yards, upon which point he did not think there was room for two opinions. He agreed with Mr. BEADEL that covered yards made stock tender, and great risk was run if care were not exercised in turning them out in the spring. With regard to the question whether there was greater economy in feeding, as distinct from fattening, in covered yards, he was of opinion that, in the case of growing beasts and beasts under one year old, it was no greater than in yards one-third or two-thirds covered, with good warm sheds, when the interest on cost and maintenance of covering was taken into consideration.

Some figures had been given by Mr. TUCKETT to show that a winter-fed beast and its manure was £5 more valuable when fed in a covered than when fed in an open yard. He (Mr. MARTIN) wished he could believe this to be true. In his opinion, £5 was a very fair profit on a winter-fed beast from either a covered or open yard, and, therefore, these figures proved too much. Neither did he think there was much to be said for Mr. TUCKETT's claim that, with covered yards, there was a saving in labour. The farmstead may be more compact, but a beast required a certain quantity of room, whether in a covered or open yard, and this could not be curtailed without letting in the risk of the beasts goring each other. Granting there was a saving, it must be very small. He was, and had been for some years, agent for over 50,000 acres of land, and whilst he had often been asked by tenants to put good wide sheds to the yards, he had never once been asked for the latter to be wholly covered. It might be inferred from what Mr. CLARKE had said that he also had been just as free from similar requests. It might be contended that this only showed that tenants

were not able to rightly estimate the value of covered yards; but he was quite satisfied that, in his own county at least, many farmers were as well and even better able to judge what was best for stock, at all events, than any architect could be.

It must always be borne in mind, when advocating the use of covered yards, that it was quite as necessary that young stock should have the maximum of sun and air as the minimum of exposure.

It was also good for all kinds of stock that the sun should shine into the yards, and therefore covered yards should face the south and have open gables.

There appeared to be a great diversity of opinion on the question of the cheapest material for covering yards. Some three years ago he went very closely into this question, and it appeared plain to him that a roof of wood and pantiles, with the latter at 50*s*. per thousand, was as cheap as galvanized iron and much more durable. With regard to the objection that pantiles were so easily blown off, he might point out that this could be avoided by fastening them on with a galvanized iron nail.

Therefore, so far as cost was concerned, he preferred pantiles to galvanized iron; but, leaving cost out of consideration, he would prefer galvanized iron to tiles or slates, as, when covered with the latter, the roof required so many pillars to support it, and these pillars were inconvenient in the centre of yards, and took up a great deal of valuable room. He had covered in two large yards for his own use, at a cost of 35*s*. per square. They contained 3,400 square feet, and were covered with ⅜ white-wood boards overlapped, coated on the outside with Stockholm tar and sprinkled with sand. This formed a very cheap covering, very little timber and few pillars being required, and he had no doubt it would prove a very efficient and economical one, as he knew similar

roofs which had stood 25 years, and appeared to be as good and sound now as when first put on. The gables and ridges he had left open.

With regard to draining yards, he was satisfied in his own mind that tanks did not pay. He had a neighbour who was of a different opinion until taught by experience. He had tanks in a yard with unspouted buildings, and he put the liquid manure collected from them on the same grass field for 15 consecutive years without being able to see the least improvement. In a covered yard with the buildings spouted no underground drainage was required, as the straw would absorb all the liquid. He could not see the necessity for cementing the bottom of the cattle-sheds, as advised by Mr. MANN. He thought underground drainage for urine a mistake, without a great fall, and flushing power. He now always paved cart-horse stables with Staffordshire blue bricks upon 12 inches of concrete, as they were very durable, and therefore cheapest in the end.

Some mention had been made of covered yards for sheep. He had travelled a great deal in England, and had rarely seen any covered except for sheep feeding for shows. It was, therefore, unnecessary according to his opinion, to devote much time to this part of the subject.

Objection had been made by Mr. MANN to a W.C. in a farmhouse. In his experience he had not found them get out of order any oftener than in a house, and surely the wives of farmers should be allowed the same convenience as persons living in the towns. Earth-closets in a house were simply abominable.

With regard to the plan of a proposed farmstead, attached to Mr. CLARKE's Paper, he thought, with Mr. CHANCELLOR, that a mistake had been made in putting the implement shed facing the south; and he also thought some objection might be taken to the homestead being arranged in a

square, as this form let less sun into the yards than any other that could be adopted.

Mr. A. R. Stenning (Fellow) desired to say a few words on the subject from an architect's point of view. He had no experience as a land-agent, but had been called in when landlords and tenants had made up their minds as to what they would like, or when the former wished certain things done in connection with farm buildings in their own occupation.

As to the general arrangements, he thought it the best plan to adopt the square form, covering in on three sides. He did not approve of Mr. Clarke's plan of placing the implements on the south side; the effect was bad, and space was thus occupied which would be much better used for ventilation. The arrangement he had generally followed was to place the feeding stalls and cows on the west side, and the implements, barns, and root stores on the north.

He observed that Mr. Clarke provided for lighting the stables from the top. It was not very clear what his reasons were for so doing, unless it was for purposes of ventilation, which, it appeared to him, might be obtained in other ways without sacrificing the side lights.

He had no experience as to the cost of covered yards, but he thought it would be better to cover all the buildings with slates in preference to corrugated iron.

He did not approve of Mr. Mann's suggestion, that cement should be used externally on walls. Good bricks could be obtained in almost any district, either manufactured in the neighbourhood or procurable by railway, and it was surely better to have good material exposed to view than indifferent material covered up with cement, and leading to greater expense in the long run in the way of repairs.

He thought cottages should be built with two half-brick

walls. He had put up some in this way, carefully bonding the two together on the ground floor with hard bricks in cement ties, as one over the other it made a strong building, and ensured freedom from damp, particularly if the upper storeys were covered with vertical tiling.

Nothing was better for roofing buildings or cheaper than diagonal boarding on fir timber, without rafters, placing the principals 10 or 12 feet apart, with two purlins, and with slates or tiles. He had covered buildings both with slates and corrugated tiles. Either made a very good covering if care were taken to have the roof of sufficient pitch to prevent the lifting action of the wind. The best way to secure tiles was with galvanized nails on fir laths, in which case it was, of course, necessary to have rafters, and to omit the boarding.

Blue Staffordshire bricks laid on concrete made an excellent floor for stabling and cowsheds; cement, properly laid, made a good floor. He had used asphalte, which stood well. While hot, it was pressed in with a small frame of wood in the pattern of grooved bricks, so giving a good foothold.

It had been suggested by The President that it would be desirable to have on record some statistics as to the cost of farm buildings per acre. The difficulty was that no two farms were alike in their requirements, and consequently no one set of buildings was exactly suited to every farm of a certain acreage. The discussion, however, had supplied some guide to the cost per square. Mr. Chancellor gave his experience as £15 per square. He might remark that he (Mr. Stenning) had not been able to put up buildings at that cost, but he had taken out the areas of some buildings he had erected, viz. :—one in Surrey, 52 squares, without covered yards, at £22 per square; one in Middlesex, 43 squares, at £20 per square; and one in Bucks at £30

per square. The last was built by a gentleman for his own occupation, and was more expensively fitted up, having, for instance, paved footpaths all round the sheds, so as to save walking in the dirt. The difference in the cost between the slated roof and corrugated tiles would be about £2 per square.

He thought that Mr. CLARKE's estimate of the cost of erecting the building shown on his plan was considerably short of the mark. He calculated it at something nearer £3,000 than £2,000.

Mr. G. D. YEOMAN (Fellow) considered the Papers by Mr. CLARKE and Mr. MANN extremely able and instructive. He would have been glad, however, of a little more information as to the mode of covering in the yards alluded to. The best examples he had seen were in the north of England, and had been described, in 1865, in the "Journal of the Royal Agricultural Society," vol. i., part 1, 2nd series; and in the same journal of the same year, in an able letter from the late Sir HARRY MEYSEY-THOMPSON, of Kirby Hall, who was both a large landowner and a large farmer. Another set of buildings was described in the 4th series of the 4th volume of the "Transactions of the Highland Agricultural Society of Scotland," in an article on the best modes of housing and fattening cattle. The essence of the plan on which those buildings had been put up seemed to him to be having two roofs, and a projecting roof at the top, overlapping the others half-way down. Air came in all round at a height of 9 feet above the causeway, and, again, half-way up, and, thirdly, at the apex of the roof. He could not, therefore, agree with those gentlemen who thought that covered sheds were necessarily too hot, or had insufficient ventilation.

If that mode of construction were followed, he believed it would be found that the temperature of the outer air was

maintained in the yards, and as all the ventilation was from above there was no draught. With all due deference to an able gentleman (Mr. Beadel) who spoke on the last occasion, he did not agree with him that covered yards were liable to make cattle tender if turned out in the spring, that is, if the foregoing plan of constructing the buildings were adhered to. He had found that both young stock and store stock of all sorts, and even milch cows, had been turned out straight from their yards to the fields without injury from cold.

Another valuable feature in covered yards was the extreme saving of manure, a point on which he assumed that all present were agreed. There had been a little difference as to the amount of labour saved, but he believed it would be found that the labour attending the transportation of the manure from under the covered sheds to the fields was not much more than half what it was under the ordinary open-yard system, for the reason that all that was required was to load it into carts once and take it straight to the fields, thereby doing away with the old-fashioned practice of carting it, in the first instance, to the manure heap for decomposition. In covered yards the air was kept from the saline portions of the manure, and, being under cover and the rain-water excluded, it was taken out from the yards in first-rate condition for immediate use on the land.

To prevent draught it was advisable to have large doors instead of gates to covered yards, and they should be all spouted under one roof, so that all the water went into its own channel without coming into the yard at all. He also found that cattle which were fed under cover in this way thrived better and did perfectly well on less food, and, having constant fresh air and free ventilation, their coats had none of the tendency referred to by Mr. Beadel to get porous or tender. He believed it was the fact that cattle

under cover would do on one-eighth less food, and he was informed by competent authorities that the extra cost per head for each beast for the winter months under covered yards was only 7*s.* 7*d.*, which would pay 6½ per cent. on the outlay for the buildings.

There was an observation on page 102 of Mr. CLARKE's Paper to which he must take exception—the remark, namely, that he "had never put up a covered yard at a landlord's sole expense, except for his own use; but had always impressed upon tenants his opinion that their use would return them a large interest if they expended the money themselves, and that they were clearly such an 'extra' beyond what it is customary for landlords to provide, that it would be unreasonable to ask them to erect them at existing homesteads unless a higher rent was obtainable or other advantage secured." His (Mr. YEOMAN's) experience had been very different. He knew of five or six large estates in the north of England where landlords had put up covered sheds on this plan whenever farms required new buildings, and in several cases the old open yards had been converted into covered yards without anything out of the way being charged in the shape of interest.

On page 104 of his Paper, Mr. CLARKE said it was preferable that the roofing area should be available for breathing space in stables. He quite agreed with that remark. It too often happened that a granary, or hay-loft, or something of that sort, was placed over the stables. He had found it a good plan of ventilating stables to make one aperture at the bottom of the wall, and another as high as possible; but if the opening were made straight through the wall the draught was liable, by blowing on the horses' feet, to give them cracked heels, and therefore it was a great advantage to bring in the air through two rectangular elbows, so as to check its velocity and direct it away from

the horses' feet. The mode was to run a pipe down to the ground vertically, both outside and inside the stables, the bottom of these pipes joining a horizontal pipe which ran through the wall, or below the foundation of the wall, as the case may be, the tops of the two vertical pipes being covered with iron grates. He quite agreed with what Mr. MANN had said (page 121) about the value of wind-mills for pumping the water into cisterns in case it were wanted.

He did not quite concur with Mr. SQUAREY's observation (page 127) that "it was extremely unwise for agents or owners to suggest the erection of buildings unlikely to be thoroughly appreciated by the tenants for whose use they were provided," and for the reason that one constantly heard old-fashioned persons declaring that they hated any *innovation*, as they termed it; in fact, they even ran down covered sheds, asserting that they cost more than they were worth, until they had tried them, when they generally ended by coming to an opposite conclusion.

He would like to say a word or two on the subject of cottages. He had recently built several cottages in connection with farm buildings, and had always endeavoured to provide a fair living-room, a fair kitchen, and at least three bed-rooms. The more labourers' cottages there were adjoining farms, especially outlying farms, the better. The men were near their place of employment, and their wives and children were available when wanted, either for summer or winter work on the farm, instead of having to walk several miles, perhaps, from the nearest villages. It was also extremely useful to have the labourers handy in case of fire. Where there was a family no cottage ought to be erected without at least three bed-rooms upstairs. He had proved that a cottage could be put up, comprising three bed-rooms, a back kitchen, scullery, and offices, for £100.

Mr. G. R. Crickmay (Fellow) could not agree on a few practical points with some of the speakers, and to those points he would confine his remarks. He might say in passing that the discussion which had taken place and the Papers which had been read pointed, he thought, to this, that a land-agent or architect could not alone carry out all these buildings in a satisfactory manner. What was wanted was a combination of knowledge—the land-agent with his knowledge of agricultural requirements and of the proper arrangement of the buildings, and the architect, or building-surveyor, with his knowledge of construction and materials. It was as to the latter that he would, with permission of the Meeting, say a few words. In farm buildings, perhaps more than in any other kind of work the village carpenter was employed, and this was very natural and proper. It was no doubt desirable to use as far as possible the materials peculiar to the locality, but it was of great importance that these materials, whatever they might happen to be, should be properly used, which was not always the case. For instance, in many places where green sand was found, it was used with lime, thus completely destroying and disintegrating the mortar, and in many such cases in the course of time the buildings were found to be giving way, except where the green sand happened to be used in damp situations, in which case the mortar became hard, and would stand a long time.

In some localities stone was very cheap, as had been mentioned by the last speaker; but it must, indeed, be cheap to enable cottages to be built for £100 each. Under such circumstances, there could be no doubt about the advisability of using stone. As to sand, as in the instance he had mentioned, its quality was so important a thing that it was better, for the sake of getting good mortar, to pay a high

price for it than to use an unsuitable kind on the ground of apparent cheapness.

Exception had been taken by Mr. Chatfeild Clarke and some other speakers to the use of cement concrete. In some places cement concrete was the one thing above all others to be used, but it must be intelligently used. The reason why Portland cement concrete so often failed was because it was used in the same manner as Roman cement. The latter should be used quite fresh, whereas Portland cement should be used stale. The right thing to do with Portland cement, to avoid failure, was in the first place to take care, by testing, that it was of good quality, and in the next, to remember that it required to be exposed to the air for two or three months and turned over several times before it was used. A cement concrete would then be obtained that would not crack. It was equally important to take care that the gravel or sand used for making the cement concrete had no clay or loamy material in it. If it had, it was fatal to the material. With these precautions, a building constructed with Portland cement concrete was as good as if built of brickwork, and less absorbent.

Some remarks had been made with reference to hollow walls. Walls of the kind were satisfactory if tied together with cast-iron ties, and if care were taken to put lead over the lintels and openings.

Some objections had been taken to pantiles as a covering for yards and roofs. He agreed entirely with those objections, but there were some localities where it was advisable, in fact desirable, to use plain tiles, and he considered that a plain tile covering made as good a roof as could be constructed, and much more satisfactory than slates, all other things being equal, because the buildings so covered were warmer in winter and cooler in summer, and did not attract the sun to the same extent.

With regard to floors, no doubt good Staffordshire tiles or bricks formed about the best material for the purpose if they could be obtained, but they were sometimes very expensive in consequence of the cost of carriage and the distance they had to be carted, and in such cases he preferred using something else. He had sometimes found, under such circumstances, cement concrete, properly trowelled (not floated) with a steel trowel, to a fine face, a very satisfactory material to employ.

He did not agree with Mr. SQUAREY, notwithstanding his great experience in farm buildings, as to wood floors for cattle-sheds. A floor of the kind would be found, he thought, a great nuisance in cattle-sheds, although it would be useful in other places.

There had been some references to earth-closets. He was a great believer in earth-closets, if properly arranged. There was no kind of closet freer from nuisance in certain situations. A plan he had adopted very largely was to have two pails, one for the earth and the other under the seat, with a trowel for throwing the earth from the former into the latter. There was not the smallest nuisance from the use of the pails, and the system supplied a valuable manure for use in a garden. His friend Mr. MOULE used to carry some specimens of the earth about in his pocket, after being used ten or a dozen times, and it was entirely free from smell, so complete was the absorbing and disinfecting power of earth. He would not, however, use an earth-closet on the upper floors with the shoot sometimes employed. Every modern farmhouse should have a properly-constructed w.c.

Mr. J. WEALL (Fellow) had lately erected, on different estates, several pairs of cottages with hollow walls, and had found that they gave great satisfaction. They comprised three bed-rooms, a living-room, and scullery, with the

necessary outbuildings, and cost (not £100 each) from £350 to £400 a pair.

In altering old buildings he had generally adopted the plan which Mr. CHANCELLOR suggested, of utilizing, where practicable, the old barns, and making them the nucleus for a fresh set of buildings. In two instances only he had erected new buildings, in both cases for stiff arable farms of over 200 acres each, at a cost of a little over £2,000 each, which represented something like 10*s.* or 12*s.* an acre—about five per cent.—and the rental value was only about £1 or £1 4*s.* If any gentleman could inform him how to erect cheaper buildings, so that the owner could get a better return for his money, he would be obliged to him. It seemed unreasonable that a set of buildings should represent half the rent, and if the money had to be borrowed of the Land Improvement Company, it would represent 14*s.* or 15*s.* an acre, which was certainly too much.

He had very little experience with regard to covered homesteads, but he could only say that no stock should be fed during the winter months except under cover. His farm was exclusively grass land, and he always tried to graze the cattle and fatten them off in the summer-time with cake on the meadows.

He endorsed what Mr. BEADEL had said at the last Meeting, that to get profit from cattle they should be fed on grass land in summer-time. Many farmers would be better off if they followed the plan recommended by Mr. BEADEL, using plenty of cake, which, at the present time, must be the cheapest manure that could be made.

Mr. H. A. HUBBERSTY (Associate) said that many present were probably aware that the great objection to the earth-closet was the amount of liquid which got into the pail and hastened decomposition. A plan adopted in

Lancashire, and which had been patented, he believed, was to place an earthenware pan in front of the seat to receive the urine, which was taken off by an independent pipe into a drain below the pan which had holes in the bottom leading to the ordinary drain: by that means all the liquid was carried off, leaving nothing but the solids, and, as a previous speaker had suggested, two buckets would answer the whole purpose. He thought this plan would be found to meet all the objections that had been raised to earth-closets.

Mr. W. Eve (Fellow) said that The President suggested on the last occasion that some figures of actual work might be given, and he had therefore placed some plans upon the wall which his brother and he had designed and erected, and had subsequently sent to the Kilburn Show. It seemed that Mr. Clarke was in favour of covered and enclosed yards. He (Mr. Eve) thought enclosed and covered yards very objectionable, as they made the stock delicate; but in the case of covered yards, with plenty of ventilation and air, no such difficulty would, he thought, arise. In this case there were 210 squares of ground covered, and as one building was of two floors, and covered 40 squares, there were altogether 250 squares. The cost (exclusive of levelling the site and road-making, but inclusive of cartage) was £2,870, or £13 13*s.* per square of ground covered, or for the 250 squares £11 per square.

The plan was as follows:—On the north side, a range of buildings, comprising cart-shed, corn-room, barn, large chaff-bins, mixing-room, and root-house, and over these wood-store, cake-room, mill, and granary, from whence corn was lowered into, or raised from, wagons beneath the cart-shed, where the loading could be carried on in the dry.

The west front comprised chaff-house, cart-stable, gang-way-entrance, implement-shed, and mess-room for men.

The covered yards were formed by a 4-span roof, of about 32 feet each, in which were included nag-stable, harness-room, piggeries, and stalls for cows.

The covered area was subdivided to form 4 yards of about 200 superficial yards each, and 4 of 100 yards each, the passages being arranged so that all the mangers could be supplied without entering the yards.

With regard to the material for roofing, he thought it should be, as in the case referred to, slates. Plain tiles were very dear. The pitch of the roof had to be greater in order to be safe, and the timbers had to be stronger.

Good ventilation was obtained through the ridge, for he did not think a manure tank was of the slightest use in covered yards.

It had been observed by Mr. MARTIN that farmers did not generally care for covered yards. It must be, he thought, that they, like the friend to whom Mr. MARTIN referred, had not been "taught by experience."

In the case referred to a neighbour said to the farmer, "You will never get rid of your straw; you can never rot that lot of straw in your covered yard!" He seemed to think that the essence of manure was the rotting of straw, though it had been shown that the rotting of straw by itself practically was of very little value.

As to erecting a cottage with three bed-rooms for £100, he thought it impossible.

Earth-closets were, he thought, excellent things, if people did not mind taking trouble about them. He had formed one on the first floor, and it was highly satisfactory.

Mr. YEOMAN asked permission to make two or three remarks about the £100 cottage to which he had referred. Facts were plain things, and spoke for themselves. About the year 1866 a society offered a prize for the best plan of a

labourers' cottage, not to exceed £100 in cost, and having three bed-rooms. Some 20 or 30 different architects competed for the prize, and, in conjunction with his late partner, he sent in a plan. They had the good fortune to get the first prize. The cottage had been built, and could be seen by anyone who chose to visit it, and every bit of material was paid for at market price. He might mention that this particular cottage was now standing in the north of Yorkshire. It was substantially built in stone and slated, and, as he had said, cost £100, and only £100 was paid for it.

Mr. R. W. Mann (Fellow) observed that it was very difficult to get some owners to build cottages. They declared that cottages brought paupers into the parish. Some owners, on the other hand, were smitten with a mania for building fancy cottages. His next-door neighbour built a cottage for a gardener at a cost of £500—a very different experience from that described by the last speaker. The cottage he was referring to had, like Mr. Yeoman's, three bed-rooms upstairs, and it was one of the ugliest things ever seen.

He would be glad of a little more information about thatch. It had been said that thatch was going out of fashion. He could only say that, if cattle could be consulted in the matter, they would prefer thatch to anything else, for he always found them lying, both in winter and summer, under anything like a thatch, whether a thatch of straw or heather, or whatever it might be. He was aware that it was an objection to thatch, particularly for cattle-sheds, that the animals got at it; but, by cutting off a margin of straw and conveying the water into a gutter by an edging of tiles, this objection to thatch was overcome. With a slate roof water could, no doubt, be drained off more quickly; but in hot weather a slate roof was unbearably warm, and in

winter extremely cold. He would, therefore, be glad to hear why it was that thatched roofs were going so entirely out of fashion.

With regard to water-closets, he considered that a w.c. without water was much more unpleasant than an earth-closet without earth.

THE CHAIRMAN observed that it was a matter of regret that Mr. CLARKE, the author of the first Paper, was not present. He had, however, forwarded a written reply to the observations made at the previous Meetings, and he would ask the Secretary to read it.

The Secretary read the following reply from Mr. CLARKE (who was unable to be present) to the comments on his Paper made at the previous Meetings. After regretting his inability to be present, Mr. CLARKE, expressed himself much indebted to the Members of the Institution for the kind manner in which his Paper had been received, and his obligations to those gentlemen who had so fully and practically expounded their views on many important points.

Although he had found it necessary, in stating his views as to the building accommodation most suited for the best systems of farming at the present day, to recommend a certain type and mode of arrangement, and to illustrate these with a plan of a new set of buildings designed with a view of attaining an appreciable amount of structural economy, he quite agreed, with Mr. SQUAREY, that existing buildings should be preserved where possible. This, of course, should be done in all cases where they could be repaired, re-arranged, or added to, if necessary, so as to make them efficient for a system of management practised by good farmers. But Mr. SQUAREY had gone further, remarking that agents should provide such buildings only as

would be thoroughly appreciated by the tenants for whom they were provided, and such as they would use from day to day as far as possible. Herein lay one of the fresh difficulties which a land-agent had to contend with at the present day.

Tenant-farmers were now a very migratory class of men. This year a local man—say, for instance, in one of the Midland Counties—may, perhaps, be the occupier of a farm, but not quite satisfied with his buildings. His landlord, to please him, makes the required additions, yet the man speedily gives up the tenancy. His successor, found after some trouble and hailing possibly from the north of the Tweed, as likely as not condemns the homestead as insufficient or unsuitable for his requirements; or, if from another district, perhaps consider the farm already overstocked with buildings. He had known instances of this kind to occur; and as farmers were moving about the country so much more than they did formerly, the precise local ideas of any particular body of tenantry should not be too faithfully carried out, or disappointment might result if a stranger to the district presented himself. It appeared to him, therefore, that the wisest course for an agent to take would be to think the subject well over, and carry out some of his own ideas in preference to gratifying, in their entirety, the wishes of any tenant who might be in a position, if he chose to alter his mind after his requests had been complied with, to leave the estate by giving six months' notice.

He had been much interested by the able and practical remarks made by Mr. Chancellor, and fully agreed with him on many points, particularly in regard to the re-adaptation of old barns. A short time ago one of these structures, 105 feet long by 20 feet wide, was converted, at a very moderate cost, under his direction, into a most useful

and convenient set of straw and food stores, with a granary and winnowing floor, on the principle advocated in his Paper, and it was much approved of. Barns would frequently be found more adapted to these uses than for housing stock, as the second floor, which could often be introduced with advantage, would not be suitably placed above a space occupied by animals.

He thought Mr. CHANCELLOR and other gentlemen quite justified in taking exception to the aspect of that portion of the cart-shedding at the south front of his homestead plan. It was an error not rectified (as he had intended it should have been) before the drawing was completed, and by an oversight, due to haste, it was left to appear at direct variance with the opinions expressed in his Paper. There were four divisions of this shedding facing the south, and the alterations to have been made were as follows. The two openings, forming the south-west corner, were to have been enclosed with a partition and doors, for the better preservation of implements of value, as recommended in his remarks, which would render their southern aspect of no consequence; while the other two openings, next to the entrance of the yard, should have had the wall enclosing them built at the south side, instead of the east, which would have turned their front to the east, which was, in many districts, found to be the most favourable aspect, as it was free from driving storms of rain. The building would stand upon the same ground notwithstanding these alterations, but Mr. BEADEL had strongly condemned its being placed there at all, observing that the south end of a yard should be as open as possible, without any buildings in advance of it. He (Mr. CLARKE) could only say that, as far as his experience went, he had found it requisite, on several occasions, for the comfort and thriving of the stock in yards with this aspect, that some shelter more effective

than the usual 5-foot wall should be given to break the force of south or south-westerly gales. In one situation, somewhat exposed, he knew of two such yards, which for this reason were at times extremely uncomfortable and unsuited for the use of stock. The wind swept with unbroken force into the sheds, and the tenant begged hard for the wall to be heightened, or something else done to mitigate the evil. The roof of a low building, like an implement shed, did not impede the entry of the sun to a shed 30 feet in its rear, as the plan showed it to be, nor into a large portion of the yard; and he had placed it there for the sake of attaining structural economy in securing a considerable amount of walling, which would otherwise have required to have been built, as well as for its use for shelter. He did not see why the elevation of the homestead should be so ugly as Mr. Beadel feared it would be, but he certainly gave this feature the least attention, as he thought general convenience of arrangement and economy of construction required first attention.

With regard to covered yards, it appeared to be the general opinion of the gentlemen who addressed the last Meeting that very great advantages attended their use, both to stock and manure. Mr. Tuckett, who spoke much in their favour, had, however, taken exception to the placing of the shelter sheds of the open yards in his (Mr. Clarke's) plan against the south end of the covered yards; but he might explain that each shed would only be a lean-to one, and room would be left in the top of the gable for any necessary ventilation, or to admit the sun, and there would also be a skylight in the roof. If the south ends of covered yards were left too open, he agreed with Mr. Chancellor that they were unsuited for their purpose.

He must say a few words in respect of the cost of corrugated iron roofs, which he stated he had erected at

4*s.* 6*d.* per yard of ground covered, or about £2 10*s.* per square. Mr. TUCKETT appeared to be very doubtful whether the work could be done at this price, as his estimate in 1866 for a square came to £4 15*s.* On referring to his treatise in the "Royal Agricultural Society's Journal" of that year, for the particulars of his roof, he found at once the cause of such different estimates. The cost there given of the curved corrugated sheets and fixing alone, without tie-rods, &c., was £3 per square, which was much in excess of the actual cost, in 1879, of the straight corrugated sheets and fixing on timber, which was the plan he adopted. A ton of 22-inch gauge straight sheets would cover as nearly as possible 15 squares, which at £16 10*s.*, the price he quoted, makes the cost of each square about 22*s.*, to which might be added about 3*s.* for fixing, making 25*s.*, against Mr. TUCKETT's £3 for iron of lesser strength, 24-inch gauge. This accounted for the large sum (35*s.*) of the difference in price between the two estimates, and the other 5*s.* might be caused by a difference in the cost of town and rural labour, country carpenters being able to construct the pointed roof on timber, while experienced tradesmen were required for curved roofs with iron ties, which was the principle adopted by Mr. TUCKETT. The figures he gave in his Paper were reliable, and the comparison which he had just made would verify the remarks which accompanied them—"I have always chosen a pointed roof on timber in "preference to a circular one with iron ties because I found "that it could be erected by any handy carpenter, and cost "less than those estimated for by manufacturing firms."

Several gentlemen had condemned pantile roofs, as the tiles were so liable to be blown off by the wind, and were, consequently, very expensive to keep in repair. He had found this to be the case with the old-fashioned pantile laid on laths upon rafters; but he did not think the improved

description of the Bridgwater pattern, if laid upon 1-inch boards on purlins 6 feet apart without rafters, were liable to be disturbed by gales, the boards preventing this. He selected this kind of covering for three somewhat extensive alterations and additions to existing homesteads last year, and, although they had been covered in for six months, not a tile had been disturbed. They possessed the well-known advantage over slates of modifying the extremes of heat and cold, and were considerably cheaper, as, on one of the jobs he alluded to, the contractor's estimate for the buildings, if covered with slate on rafters, was £1,200, whereas with Bridgwater tiles on boards it was only £1,130.

With regard to Mr. MANN's Paper, he thought that gentleman was to be congratulated on supplying such a useful contribution to the subject under discussion, as well as for his consideration in selecting for his remarks those subjects only which had not been treated of in the Paper previously read. He (Mr. CLARKE) was glad to see that he was an advocate for wood paving in farm offices; and, with Mr. SQUAREY, he wished to add his testimony in favour of the system, although his experiments with wooden flooring had been of a different kind from those mentioned by these gentlemen. For the paving of cowstalls he had used a selection from disused railway sleepers, which were often to be bought at about 1*s.* each; they were of sufficient length to reach from the manger to the drain channel, 5 inches thick, and seven of them in width would be sufficient for two cowstandings. The warm and even surface which they presented as compared with stones was of great advantage in allowing much less litter to be used without lessening the comfort of an animal; and no description of flooring could be much cheaper where it could be obtained. On those estates where timber was plentiful, and suitable flooring material scarce, it might be worth while to cut up

any rough trees or limbs into planks for this purpose, although they must not be expected to last as long as the sleepers, as these had the advantage of being creosoted.

In conclusion, he again thanked the Members for the kind reception given to his Paper.

Mr. C. JOHN MANN, in reply, desired, in the first place, to thank the Members of the Institution for the kind way in which they had received and discussed his Paper, and also to express his regret that Mr. CLARKE was absent on the present occasion to assist him in replying to the remarks that had been made. It was not possible within the time at his disposal to deal with all the points which had been raised in the course of the discussion, but there were one or two matters to which he would briefly refer. Reference had been made by Mr. CHANCELLOR, in his very useful and valuable remarks, to the advantage of converting some of the large barns frequently met with. He called to mind a barn of the kind, almost exactly similar in size to that to which Mr. CHANCELLOR had referred. It was converted into a stable for fifteen horses and a large out-house and root-house, a large portion being retained as a barn, and was thatched with reeds. Being built with stone walls it was a very substantial structure.

It was said by Mr. SQUAREY to be "extremely unwise "for agents or owners to suggest the erection of buildings "unlikely to be thoroughly appreciated by the tenants for "whose use they were provided," but it seemed to him (Mr. MANN) sometimes very undesirable to defer too much to tenants, as the ideas of one tenant as to the proper arrangements were often very different from those of the tenant who might follow, and should be listened to with caution.

The condemnation of pantiles, in which he could unite, had been pretty general, but he might explain that he

had referred to plain tiles rather than to pantiles. He sometimes used them, but had used plain tiles very much more frequently. They were certainly warmer in winter and cooler in summer (and in many districts they were cheaper) than slates. They required slightly heavier timbers, but if put on with a higher pitch and with a greater lap they were not more liable than slates to be blown off in a gale. Pantiles if fastened with a galvanized iron nail in the manner recommended might be an improvement. They formed a cheap roofing, the cheapest, he supposed, to be had. He generally bedded plain tiles in hay, and laid them dry, a better system, he thought, than bedding them in mortar.

It seemed to be generally agreed that a liquid manure tank was of no use in a covered yard. What he had referred to was a liquid tank with a covered manure pit in an open yard. He supposed that everyone would admit that to be useful.

He was rather sorry to find that corrugated iron roofing had been so generally condemned. He had hoped that it was a cheap method of construction, likely to be considered worthy of more general adoption. He had some experience of instances in which it had been used, and up to the present time it had given satisfaction, but it remained to be proved how long it would last. He was aware that any imperfection in the galvanizing or any injury occurring to it would at once render it liable to destruction.

Exception had been taken by Mr. Chatfeild Clarke to Tobin's tubes. He had remarked that they were comparatively useless if they were in a place where there was no fire or draught. He (Mr. Mann) had had some experience of Tobin's tubes, and thought that a fire was not absolutely necessary for their efficiency, because the air was blown with some force through them, and came in in the way described by Mr. Yeoman, with an upward

current against the check inside the tube, and a certain amount of air would be displaced in the building to be ventilated. There were opportunities in the ridge, and elsewhere, for the air to get away. He thought it an available means of introducing air with the least possible draught, and therefore ventured to disagree with Mr. CHATFEILD CLARKE on the point.

He desired to explain that he did not wish to do away with w.c.'s in any place where they could be kept in efficient order, but, unfortunately, in visiting farmhouses, he found them frequently introduced, apparently under the impression that they were a luxury, whereas, in fact, they were an unmitigated evil where they were not supplied with water, or where the work had been done by unskilled men. He was of the opinion of a previous speaker that an earth-closet in bad condition was better than a w.c. in bad condition, and was not so likely to be injurious to health.

An objection had also been raised by Mr. CHATFEILD CLARKE to the cement which he ventured to suggest should be employed for the lower storeys of buildings. He should, perhaps, have used the word *rough-cast.* So far from being unsightly he had found that it looked rather picturesque. Walls done over with cement, with sea-beach thrown over it, were generally considered to be rather ornamental than otherwise.

No doubt double walls kept out the damp, and if properly bonded they were very satisfactory, but it was not always easy to get workmen to bond them well, and they were often careless in keeping the space. Unless slips of wood were placed between and carried up with the walls the mortar would slip down, and the supposed hollow space became ineffectual.

He agreed with those gentlemen who thought that there

should be nothing less than three upstairs bed-rooms in cottages. The difficulty sometimes was to get the ground-floor large enough. There would be a living-room 12 ft. 6 in. or 13 ft. square, and a small back kitchen 7 ft. or 8 ft. wide, and a good-sized larder and fuel place. He had erected fifty or sixty pairs of cottages at a cost of from £250 to £300 the pair. Many of them were hung with weather-tiles, and looked picturesque, and were substantial. He could not say he had achieved anything so good as Mr. Yeoman, and would like, certainly, to be able to build cottages at the price he mentioned. He had found that labourers, as a rule, did not care for very large cottages or large rooms, and he had known them complain that they were difficult to warm.

The Chairman said that there was a double reason why he should be as brief as possible in performing the duty of summing up the discussion. First, because of the lateness of the hour; and, secondly, because at the last Meeting he had himself taken part in the discussion just concluded. Many points had been raised on which there were differences, and would continue to be differences, of opinion. These points admitted of a much larger amount of discussion than they had received, and as no general conclusion respecting them had been arrived at, he hoped that some of them would form the subjects of future Papers.

He was justified, he thought, in saying that the general tone of the discussion seemed to show that covered yards were preferred to open yards, and experience of our unfortunate climate during the last four months would incline most persons to the opinion that the more shelter the better, both for man and beast. During the last four months there had fallen nearly 300 tons per acre of rain in excess of that which fell even during the similar

four months of last year, and when one went about the country and saw the stock standing up to their knees in mud, unless protected, it was terrible to contemplate the injury to the vitality of the animals and the consequent loss to the farmers. It was, therefore, no matter of surprise that those who had experience of stock housed and stock not housed should pin their faith to the advantages of covered as against uncovered yards. It was comparatively unimportant whether the south side of the buildings was open or screened. The main point was to protect the animals overhead. He had found, from thirty-five years' experience of covered yards, that there was no advantage which could be compared to the housing of young stock under cover, quite apart from fatting stock, and he adhered to what he had said on the last occasion, more especially in regard to the treatment of young stock.

He thought that the Members would feel extremely indebted to Mr. Clarke and Mr. Mann for the light they had thrown upon the subject of their Papers.

The Meeting then adjourned.

PAPER 110.
No. 193.

ON THE REDEMPTION OF TITHE-RENT-CHARGE.

BY COARD SQUAREY PAIN (FELLOW).

Read at the Ordinary General Meeting of THE SURVEYORS' INSTITUTION, *February 26th*, 1883.

THE PRESIDENT (MR. E. RYDE) IN THE CHAIR.

THAT the commutation of tithe-rent-charge was a valuable and important work, tending to ameliorate the relations existing between tithe-owner and tithe-payer, no one can doubt. It is equally true that practical experience has proved the existence of defects in details, but it is only fair to remember that the subject was, to say the least of it, complicated, and one which to deal with effectually once and for all would have required an amount of foresight to which very few authors of such a comprehensive class of legislation can lay claim.

Whilst feeling no sympathy with the late vexatious agitation, recent circumstances clearly indicate that a strong feeling exists demanding a change in the present system, which is open to criticism in some of its procedure.

Difficulties connected with the collection of extraordinary tithe-rent-charge have brought the general question of tithes before the public in a manner not likely to remove existing prejudices, which in some cases have occasioned absolute ill-feeling between the tithe-owner and tithe-payer.

The history of extraordinary tithe-rent-charge has been

dealt with in a letter to the *Times* from Mr. INDERWICK, with which all are probably acquainted.

The action of Parliament clearly foreshadows a desire to obviate existing difficulties by facilitating the redemption of extraordinary tithe, and I venture to suggest whether a similar principle might not be followed with advantage in the case of tithe-rent-charge generally.

As it appears that the value of such interests varies according to the special circumstances governing each case, and that a general rule cannot well be laid down for the redemption of extraordinary tithe-rent-charge, it has been proposed to deal with each case on its own merits.

Whether special machinery for carrying this into effect is preferable to the ordinary mode of assessing compensation, is a moot point, and it is questionable whether an official assessor appointed by the legislature would be as acceptable as an umpire mutually chosen by the parties interested.

With a single exception, redemption up to the present time has been permissive, and, like much permissive legislation, has been of little practical use.

In his Opening Address, in 1880, THE PRESIDENT suggested that the Government should lend the purchase-money for the extinguishment of the tithe-rent-charge in forty-two years; the landlord paying a fixed annual sum as interest, instead of a fluctuating charge, in the meantime. Whether such an application of public money might not cause considerable dissatisfaction is open to question.

The Paper of the late Mr. OAKLEY, read before the Institution in 1870, explained fully the nature of the tithe-rent-charge, and I purpose therefore to confine myself entirely to the means for facilitating its redemption.

In the first place, I would draw attention to the history of this branch of the subject as illustrated by clauses relating thereto in the successive Acts of Parliament, from the 6th

and 7th Wm. IV., cap. 71, down to the 41st and 42nd Vict., cap. 42.

For the purpose of easier reference and saving of time, I will briefly summarize these clauses, appending thereto a distinctive letter referring to the full text to be given in the appendix.

(A) 6 and 7 Wm. IV., cap. 71, secs. 29 and 62, 2 and 3 Vict., cap. 62, sec. 19, and 5 and 6 Vict., cap. 54, secs. 3, 6, 7, deal with those cases where lands not exceeding twenty acres may by agreement be given in commutation for the whole or part of the tithes, but no basis for capitalizing the annual value is set forth.

(B) 6 and 7 Wm. IV., cap. 7, sec. 71, 2 and 3 Vict., cap. 62, secs. 2, 5, 6, and 9 and 10 Vict., cap. 73, secs. 18 and 19, treat of the power of merger by deed, subject to the approval of the Commissioners. In this case also no defined guide as to the basis of commutation is given.

(C) 9 and 10 Vict., cap. 73, sec. 1, gives power to the landowner to redeem the rent-charge under £15 if not apportioned, or where the apportionment has not been confirmed, on payment of a sum of money not less than twenty-four times the amount of such rent-charge. This is subject to the consent of the person entitled to such rent-charge; but, under 23 and 24 Vict., cap. 93, sec. 31, the Commissioners have power, with or without the consent of the tithe or land owner, to order a redemption at twenty-five years' purchase.

(D) 9 and 10 Vict., cap. 73, sec. 3, grants powers to owners of land properly charged with part of rent-charge to redeem the residue at twenty-four years' purchase, when by errors in boundary, &c., it has been erroneously apportioned on lands not within the parish.

23 and 24 Vict., cap. 93, sec. 33, amends the above by giving twenty-five years' purchase in similar cases.

(E) 9 and 10 Vict., cap. 73, sec. 5, enacts that where the whole amount or separate portion of the rent-charge does not exceed 20*s*., the same may be redeemed by not less than twenty-four years' purchase, subject to the consent of the tithe-owner and certificate of the Commissioners.

Extraordinary tithe-rent-charge is not affected by this.

(F) 23 and 24 Vict., cap. 93, sec. 20, grants that the gross rent-charge on land subject to common rights, except gated and stinted pastures, may be redeemed at the instigation of land or tithe owner for an equivalent part of the land on which the tithe is chargeable, or at twenty-five years' purchase.

The purchase-money may be obtained by sale of land on which tithes are payable, or by rate, as shall be determined by a majority of tithe-owners and tithe-payers.

Under Section 21 of the same Act, the amount of rent-charge, if less than £15, may, by the Commissioners' direction, and without the consent of the land or tithe owner, be redeemed at twenty-five years' purchase.

(G) Section 32 of the above Act provides that where land has been divided for building purposes, and on which no further apportionment can be conveniently made, the Commissioners may, on the application of one owner, and without the consent of any other owner or person entitled to the tithe-rent-charge, order the redemption at twenty-five years' purchase.

(H) 41 and 42 Vict., cap. 42, secs. 1, 2, 3, 4, I quote in full.

In all cases where land charged with rent-charge in lieu of tithes is taken for any of the following purposes—*i.e.*, the building of any church or other place of public worship; the making of any cemetery or other place of burial; the erection of any school under the Elementary Education Act; the erection of any town-hall, court of assizes, gaol, lunatic

asylum, hospital, or any other building used for public purposes, or in the carrying out of any improvements under the Artizans' Dwellings Act, 1875; the formation of any sewage-farm under the provisions of the Sanitary Acts, or the construction of any sewer or sewage works, or any gas or water works, or the enlarging and improving of the premises or buildings occupied or used for any of the above-mentioned purposes; the person or persons proposing to carry out the above-mentioned works, buildings, or improvements, shall, as soon as the person or persons are in possession of the land, and before the land is applied to any of the purposes aforesaid, apply to the Tithe Commissioners to order the redemption of the rent-charge for a sum of money equal to twenty-five times the amount thereof; and the redemption-money, with the expenses incident to the redemption, shall be paid to the said Commissioners within a time to be fixed by such order, or within any enlarged time the Commissioners may appoint; and the Commissioners shall apply such redemption-money in the manner provided by the said Acts.

Whenever land has been charged with any rent-charge not exceeding 20*s.*, the Commissioners may, if they see fit, upon the joint application of the owner of the land and the person entitled to the rent-charge, order such rent-charge to be redeemed for a sum not being less than twenty-five times the amount thereof, provided that the bishop of the diocese and the patron of the benefice consent to such redemption, whenever the person entitled to the rent-charge is entitled thereto in right of any benefice or cure.

Whenever lands charged with rent-charge under any instrument of apportionment or altered apportionment shall be divided for building or other purposes into numerous plots, and it shall appear to the Commissioners that no further apportionment of the said rent-charge can conveniently be made, the Commissioners may, if they shall

see fit, upon the application of the owner or of the person for the time being entitled to the receipt of the said rent-charge, and without limitation as to the amount thereof, by an order under their hands and seal, direct that such rent-charge shall be redeemed by the payment by the owners of the lands chargeable therewith, within such time as the Commissioners shall by such order direct and appoint, of a sum of money not less than twenty-five times the amount of such rent-charge.

It will be seen from the above enactments that the rent-charge under Clauses (C) and (E) were redeemable by payment of a sum not less than twenty-four years' purchase, whilst under Clause (D) the redemption must be effected by an arbitrary number of years' purchase.

Under Clauses (F), (G), and (H) twenty-five years' purchase is fixed, whilst under (I) a minimum only of twenty-five years' purchase is allowed.

The circumstances governing each case are not entirely identical, perhaps, but it appears to me there is not sufficient ground for the variations and "change-ringing" to which the procedure has been subjected. For instance, are the comparative advantages derived from the party redeeming being a public authority, small owner, builder, or a large landed proprietor, likely to affect the tithe-owner proportionately to the difference in the purchase-money payable in the two former to that payable in the two latter cases?

In addition to this, considerable doubt is presented from the fact that all negotiations are subject to the sanction of the Commissioners, which practically divests the whole scheme of any degree of certainty in its operation.

The question naturally arises why an arbitrary number of years' purchase should have been insisted on in some cases, whilst in others a right to make a bargain subject to the Commissioners' approval is permitted.

Limitation of the number of years' purchase may bear very hardly in the case of clergymen, where the redemption-money can only be invested at 3 per cent. under Queen Anne's Bounty, whereas an impropriator has the advantage of obtaining a higher rate of interest in first-class securities.

Let us take an example:—

A water company passing through a parish absorbs a long narrow strip of land on which, perhaps, the tithe amounts in all to some 19*s.* 6*d.* As the law at present exists, the tithe-owner not only has the trouble of adjusting the amounts payable on the different holdings through which the line passes, but, should the company choose to redeem, he, if a clergyman, will in addition be a loser by the transaction: thus, 19*s.* 6*d.* by average last 7 years = say £1, less rates, taxes, and collection at 20 per cent. = 16*s.* net income. 19*s.* 6*d.* × 25 = £24 7*s.* 6*d.* at 3 per cent. = 14*s.* 7*d.*, equivalent to a loss of 7½ per cent. of income.

Now, it may be urged that the average of the last seven years is not a fair basis, as the low price of corn may be expected in the course of time to reduce the amount of tithe payable. I believe it is quite open to doubt, owing to the mode in which such average prices are calculated, whether the rent-charge does vary proportionately to the actual fluctuations of the corn market, and Captain Cragie, in his evidence given before the Agricultural Commissioners, stated that in 1836 the proportionate values of wheat, barley, and oats then adopted were 7*s.* 0¼*d.*, 3*s.* 11½*d.*, and 2*s.* 9*d.* per bushel respectively, but since that date the price of wheat has fallen, barley materially risen, oats slightly risen in value, and consequently the value of tithe-rent-charge has abnormally risen.

"A quantity of inferior oats, barley, and wheat are now generally used by farmers, and therefore do not come into the market to affect the average."

"He further remarks that the general average is governed by the prices of the corn at the final market at which it is sold, and as there is more dealing in corn and speculating now than in 1840, the grain being sold at one market and bought at another, the price is increased."

"The markets named in the Act were not selected for the purpose of assisting the tithe, but simply were the markets for the purpose of the sliding-scale duty on grain, and were the markets at which foreign grain came into competition with English grain, and so fix the price in certain districts to consumers."

"The legislature took the official figures, irrespective of the purposes for which the official figures were given, and that is the reason why the prices are not growers' prices, but practically consumers' prices."

To devise the best mode of remedying the existing defects and of facilitating the redemption of tithe-rent-charge, and to render the relations between tithe owner and payer less liable to disturbance by its collection and recovery, is the object of this Paper; and I venture to suggest whether the following recommendation might not meet the case :—

On the application of the tithe-owner or landowner the redemption of rent-charge, regardless of the amount, should be effected—

(A) By mutual agreement, by payment of not less than 33 years' purchase on the net annual value. Costs to be arranged by the parties.

(B) On the application of either party, the Commissioners, with or without the consent of the other, may order redemption to be effected at 33 years' purchase on the net annual value. The party making application to pay the costs. The net annual value to be the average for the last 7 years, less rates, taxes, and costs of collection.

I am aware that objection may be taken to compulsory

redemption on the plea that landowners and others may be unable to procure the necessary funds; but this difficulty may be got over by enabling them to borrow from land or insurance companies for a period of 50 years, which, at 5 per cent., would recoup principal and interest in the same way as drainage and other improvements are thereunder effected.

As an alternative for cases where the landlord may be unwilling to find the redemption-money or borrow it, the onus of payment of the tithe-rent-charge accruing on his land in one sum should attach to him, as inferred in THE PRESIDENT'S Address, 1880.

Terms on some basis such as this, properly framed, would, I believe, prove a great relief to all parties concerned, and remove the present strained relations between clergy and parishioners.

In conclusion, I must ask you to pardon me for bringing this matter before you in such an imperfect form; if, however, my endeavours result in eliciting the views of the Members of this Institution on a subject of such great public interest, my best wishes will be realized.

EXTRACTS FROM ACTS OF PARLIAMENT REFERRED TO IN MR. PAIN'S PAPER ON TITHE-RENT-CHARGE.

A.

6 & 7 William IV., cap. 71, sec. 29.

And be it enacted, that any such parochial agreement may be made in manner and form aforesaid, for giving to any ecclesiastical owner, in right of any spiritual benefice or dignity, of any tithes or of any rent-charge for which such tithes shall have been commuted, any quantity not exceeding in the whole twenty imperial acres of land by way of commutation for the whole or an equivalent part of the great or small tithes of the parish, or in discharge of or exchange for the whole or an equivalent part of any rent-charge agreed to be paid instead of such tithes, but subject in every case to the provisions hereinafter contained, &c., &c.

6 & 7 William IV., cap. 71, sec. 62.

And be it enacted, that it shall be lawful for the owner of any lands chargeable with any such rent-charge to agree, at any time before the confirmation of any such instrument of apportionment, with any ecclesiastical person being the owner of the tithes thereof in right of any spiritual benefice or dignity, for giving land instead of the rent-charge charged or about to be charged upon his lands; and every such agreement shall be made under the hands and seals of the landowner and tithe-owner, and shall contain all the particulars hereinbefore required to be inserted in a parochial agreement for giving land instead of tithes or rent-charge: Provided always, that no such tithe-owner shall be enabled to take or hold more than twenty imperial acres of land in the whole, by virtue of any such agreement or agreements made in the same parish; and the same consent and confirmation relatively to the lands and tithes comprised in the said agreement shall be necessary to any such agreement as in the case of a parochial agreement for giving land instead of tithes; and all the provisions hereinbefore contained concerning a parochial agreement for giving land shall be applicable to every such agreement, as hereinbefore last mentioned, so far as concerns the lands and tithes comprised in the said agreement; provided also, that any amendment which shall be made in the draft of apportionment before confirmation thereof, and subsequent to any such agreement for giving land instead of rent-charge, whereby the

charge upon the lands referred to in such agreement shall be altered, shall be taken to annul the execution of such agreement for giving land and any consent which may have been necessary thereunto.

2 & 3 Victoria, cap. 62, sec. 19.

And be it enacted, that so much of the said first-recited Act as enables any landowner, either by parochial agreement or individually, to give land instead of tithes or rent-charge, at any time before the confirmation of any instrument of apportionment, shall be and the same is hereby extended, and the powers and provisions for that purpose may be exercised in every such case at any time, as well after as before such confirmation of the apportionment as aforesaid, during the continuance of the Commission constituted, and with the consent of the Commissioners appointed and acting under the said first-recited Act.

5 & 6 Victoria, cap. 54, sec. 6.

And whereas the power of giving land instead of tithes has been found beneficial to both tithe-owners and landowners, but such power has been inoperative in a great degree, by reason that the landowners, by giving land instead of vicarial tithe, cannot free their lands from the liability to rectorial tithe, and the converse, be it enacted, that it shall be lawful for any tithe-owner, with the consent of the patron and ordinary in the case of spiritual tithes, to be testified as their consent under the first-recited Act is testified to anything for which their consent is therein required, and subject in that case to the limitation of quantity of land provided by the first-recited Act, and subject to the approval of the Tithe Commissioners, to agree for the assignment to any other owner of tithes issuing out of the same lands of so much of his tithes arising within the same parish, or of the rent-charge agreed or awarded to be paid instead of such tithes, as shall be an equivalent for the tithes belonging to such other tithe-owner issuing out of the same lands, or for the rent-charge agreed or awarded to be paid instead thereof, for the purpose of enabling any landowner who shall be desirous of giving land instead of tithes to free his lands, or any part thereof, from both rectorial and vicarial tithes, and from the payment of any rent-charge in respect thereof; and every such agreement shall be carried into effect by means of an award or supplemental award, to be made by the said Commissioners either before or after the confirmation of the apportionment, in like manner as awards or supplemental awards are made by them pursuant to the powers vested in them before the passing of this Act.

5 & 6 Victoria, cap. 54, sec. 7.

And be it enacted, that where any agreement shall have been made before the passing of the first-recited Act for giving land or money, or both, instead of tithes or glebe, or commonable or other rights or easements which is not of legal validity; and such lands or money, or both, shall appear to the Commissioners to be a fair equivalent for the said tithes or glebe, or rights or easements, they shall be empowered to confirm and render valid such agreement; and in case the same shall not appear to be a fair equivalent, the said Commissioners shall nevertheless be empowered to confirm such agreement, and also to make an award for such rent-charge, which with the said land or money, or both, will be a fair equivalent for the said tithes or glebe, or rights or easements, and, subject to such confirmation and award, to extinguish the right of the tithe-owners to the perception of the said tithes, or his title to the said glebe rights or easements, or to the receipt of any rent-charge instead thereof, other than the rent-charge awarded over and above the lands or money, or both, so confirmed to them.

B.

6 & 7 William IV., cap. 71, sec. 71.

. . . . . and where by virtue of any Act or Acts of Parliament heretofore passed, any tithes are authorized to be sold, exchanged, appropriated, or applied in any way, the rent-charges for which such tithes may be commuted under the provisions of this Act, or any part thereof, shall or may be saleable or exchangeable, appropriated, and applied to all intents and purposes in like manner as such tithes, and the same powers of sale, exchange, and appropriation shall in all such cases extend to and may be exercised in respect of the said commutation rent-charges; and the money to arise by the sale of such rent-charges shall or may be invested, appropriated, and applied to the same purposes and in like manner as the money to arise by the sale of any such tithes might have been invested, appropriated, and applied under such particular Act or Acts in case this Act had not been passed; and no such rent-charge shall merge or be extinguished in any estate of which the person for the time being entitled to such rent-charge may be seised or possessed in the lands on which the same shall be charged: Provided always, that it shall be lawful for any person seised in possession of an estate in fee-simple or fee-tail of any tithes, or rent-charge in lieu of tithes, by any deed or declaration under his hand and seal, to be made in such form as the said Commissioners shall approve, and to be confirmed

under their seal, to release, assign, or otherwise dispose of the same, so that the same may be absolutely merged and extinguished in the freehold and inheritance of the lands on which the same shall have been charged.

2 & 3 Victoria, cap. 62, sec. 2.

And be it enacted, that every person entitled to exercise the powers for merger of tithes or rent-charges in land under the said Acts, or any of them, or of this Act, may, with the consent of the Tithe Commissioners for the time being under their hands and seal of office, and of the person to whom the lands in which such merger or extinguishment shall take effect shall belong, either by the deed or other instrument or declaration by which such merger shall be effected, or by any separate deed, instrument, or declaration, to be made in such form as the Commissioners shall approve, specially apportion the whole or any part of any such charge, incumbrance, or liability affecting the said tithes or rent-charge so merged or extinguished, or proposed to be merged or extinguished in such lands, upon the same or any part thereof, or upon any other lands of such person held under the same title and for the same estate in the same parish, or upon the several closes or portions of such lands, or according to an acreable rate or rates upon lands of different quality, in such manner and proportion, and to the exclusion of such of them, as the person intending to merge the same, with such consent as aforesaid, may by any such deed, instrument, or declaration direct: Provided always, that no land shall be so exclusively charged unless the value thereof shall, in the opinion of the said Commissioners, be at least three times the value of the amount of the charge, incumbrance, or liability charged or intended to be charged thereon, over and above all other charges and incumbrances, if any, affecting the same.

2 & 3 Victoria, cap. 62, sec. 6.

And be it declared and enacted, that the provisions of the said Acts and this Act for merger or extinguishment of tithes or rent-charge, instead of tithes in the lands out of which such tithes shall have been issuing, or whereon such rent-charge shall be fixed, do and shall extend to glebe or other land, in all cases where the same and the tithes or rent-charge thereof shall belong to the same person in virtue of his benefice, or of any dignity, office, or apportionment held by him.

2 & 3 Victoria, cap. 62, sec. 7.

And be it enacted, that in every case of merger of tithes or rent-charge issuing out of land of copyhold tenure, and subject

to arbitrary fines, it shall be lawful for the said Commissioners, on the application of the owner of such lands, to ascertain, by such ways and means as they shall think fit, the annual value of the tithes or rent-charge so merged or intended to be merged; and the said Commissioners shall in such case cause to be endorsed on the deed, declaration, or other instrument effecting such merger, a certificate under their hands and seal, setting forth such annual value so ascertained; and in every case of future assessment of fine on the lands which before such merger were subject to such tithes or rent-charge, the parties entitled to such fine shall assess the same as if such lands were subject to the tithes or rent-charge of which the annual value shall be so endorsed; and the production of such deed, declaration, or instrument of merger, or of a duplicate thereof, with such certificate endorsed, or of an office copy of such deed, declaration, or instrument and certificate endorsed thereon, shall be sufficient evidence of the annual value of such tithes or rent-charge.

9 & 10 Victoria, cap. 73, sec. 18.

And be it enacted, that whereby any agreement or award already made or hereafter to be made a rent-charge shall have been agreed or awarded to be paid instead of the tithes of any parish, or instead of any of such tithes, and shall not have been apportioned, it shall be lawful for the person who under the provisions of the said recited Acts would have been enabled in case such agreement or award had not been made to merge the tithes in lieu of which such rent-charge shall have been agreed or awarded to be paid, or such of the same tithes as were payable out of part of the said lands, by any deed or declaration, to be made in such form as the Commissioners shall approve, and to be confirmed under their hands and seal, to declare that the tithes which he would have been so entitled to merge shall, so far as respects all the lands, or, if he shall think fit, so far as respects only any specified part of the lands out of which the same were payable, and the rent-charge or portion of rent-charge which shall have been awarded or ought to be apportioned in lieu thereof on such lands, or specified parts of such lands, as the case may be, shall be merged, and such merger shall take effect accordingly; and in case such merger shall extend to all the lands which would have been chargeable with such rent-charge, no apportionment of such rent-charge shall be made under the provisions of the said recited Acts; but in case such merger shall extend to part only of the lands which would have been chargeable with such rent-charge, then such portion of the rent-charge shall be apportioned among the other lands which would have been chargeable with such rent-charge as such other lands would have

been subject to in case such merger had not taken place; and the owner of the land to which such merger shall extend shall pay such portion of the expenses of or incident to the apportionment as the Commissioners, or any Assistant-Commissioner, may under the special circumstances order to be paid by such owner, instead of the rateable proportions to which he would have been liable in case the whole of such rent-charge had been apportioned.

9 & 10 Victoria, cap. 73, sec. 19.

And be it enacted, that all powers relating to the merger and extinguishment of any tithes, or rent-charge instead thereof, may be executed by a person entitled in equity to such tithes or rent-charge, in all respects and with the same consequence as he could have done if he had been legally entitled thereunto; and every instrument already executed and purporting to be made in pursuance of the powers of the said Acts or any of them by any person so entitled in equity, shall in every respect be as effectual and have the same consequence as if he had been legally entitled to the said tithes or rent-charge at the time of the execution of such instrument, subject nevertheless in every case to any charge, incumbrance, or liability which lawfully or equitably existed on such tithes or rent-charge to the extent of the value of such tithes or rent-charge; and any such charge, incumbrance, or liability shall have such priority, and the lands and the owners thereof for the time being shall be liable in the same manner in respect of such rent-charge, incumbrance, or liability, or of any penalty or damages for non-payment or non-performance thereof respectively, as by the said Act of the Session of Parliament held in the second and third years of the reign of Her present Majesty is provided in the case of such merger or extinguishment as therein mentioned; and every instrument purporting to merge any tithes or rent-charge, and made with the consent of the said Commissioners before the passing of this Act, shall be hereby absolutely confirmed and made valid both at law and in equity in all respects, subject nevertheless to any charge, incumbrance, or liability in all respects as is lastly hereinbefore provided.

C.

9 & 10 Victoria, cap. 73, sec. 1.

That where, under any agreement or award which has been or hereafter shall be confirmed by the Commissioners, the amount of the rent-charge agreed or awarded to be paid instead of the tithes of any parish shall not exceed the sum of £15, and shall not have been apportioned, or the apportionment of such rent-charge shall not have been confirmed by the Commissioners, it

shall be lawful for the owners of the land chargeable therewith, or any of them, with the consent of the person or persons for the time being entitled to the receipt thereof, or, in the case of an infant, feme-covert, or lunatic, with the consent of the guardian, husband or committee of the estate of the person so under disability, to redeem such rent-charge on payment, in manner hereinafter mentioned (within such time as the Commissioners shall in each case limit in this behalf), of a sum of money not less than twenty-four times the amount of such rent-charge.

23 & 24 Victoria, cap. 93, sec. 31.

Where, under any agreement or award which has been or hereafter shall be confirmed by the Commissioners, the amount of the rent-charge agreed or awarded to be paid instead of the tithes of any parish, and which shall not have been apportioned, shall not exceed the sum of £15, the Commissioners may, if they shall see fit (and without the consents of the owner or owners of the lands chargeable with the said rent-charge, or of the person or persons for the time being entitled to the receipt thereof), by an order under their hands and seal, direct that such rent-charge shall be redeemed by the payment by the owners of the land chargeable therewith, within such time as the Commissioners shall by such order direct and appoint, of a sum equal to twenty-five times the amount of such rent-charge.

D.

9 & 10 Victoria, cap. 73, sec. 3.

And be it enacted, that in every case in which, by any instrument of apportionment confirmed under the provisions of the said Acts, any rent-charge or portion of rent-charge has been or shall have been (by reason of error as to boundary or otherwise) charged on lands not within the parish in respect of the tithes of which the aggregate rent-charge, the apportionment of which shall have been so confirmed, was agreed or awarded to be paid, such rent-charge or portion of rent-charge so charged on lands not within the parish shall be redeemable on payment by the owners of the lands charged with the residue of such aggregate rent-charge, or any of them, of a sum of money equal to twenty-four times the amount of the rent-charge or portion of rent-charge hereby made redeemable. and it shall be lawful for the Commissioners, before they shall proceed to direct a new apportionment, to give notice that the rent-charge or portion of rent-charge so erroneously apportioned on lands not within the parish may be redeemed, under the provisions of this Act, within a time in such notice to be limited in this behalf.

23 & 24 Victoria, cap. 93, sec. 33.

Whenever it shall be shown to the satisfaction of the Commissioners that, by reason of error as to boundary or otherwise, any rent-charge or portion of rent-charge shall have been charged by any confirmed instrument of apportionment on lands not within the parish in respect of the tithes of which the aggregate rent-charge, the apportionment of which shall have been so confirmed, was agreed or awarded to be paid, the Commissioners may, if they shall see fit, upon the application of the owner or owners of the said lands, and without the consent of any owner of land in the said parish, or of the person for the time being entitled to the receipt of the said rent-charge, by an order under their hands and seal, direct that such rent-charge or portion of rent-charge so charged on lands not within the parish shall be redeemed by the payment by the owners of lands charged with the residue of the said rent-charge, by the said apportionment, or any of them, within such time as the said Commissioners shall by such order direct and appoint, of a sum equal to twenty-five times the amount of such rent-charge; and if there shall be any question touching the situation or boundary of the lands which shall be alleged to have been erroneously included in the said apportionment, the Commissioners shall have the same powers for hearing and determining the same as are given by the said first-recited Act for hearing and determining any difference whereby the making of an award of rent-charge in lieu of tithes is hindered.

E.

9 & 10 Victoria, cap. 73, sec. 5.

And be it enacted, that in every case in which, under any confirmed instrument of apportionment or any altered apportionment under the powers of the said Acts, the whole amount of the rent-charge or separate portion of rent-charge with which the lands of any owner shall be charged in respect there of all tithes or of any kind of tithes payable to separate tithe-owners shall be a sum not exceeding 20*s.*, it shall be lawful for such owner at his option, and with the consent of the person or persons for the time being entitled to the receipt thereof, or, in the case of an infant, feme-covert, or lunatic, with the consent of the guardian, husband, or committee of the estate of the person so under disability, at any time to redeem such rent-charge or separate portion of rent-charge on payment, according to the provisions of this Act, of such a sum of money as shall be not less than twenty-four times the amount of the rent-charge or portion of rent-charge; and after payment of such consideration-money according to the provisions of this Act

the Commissioners shall certify that such rent-charge or portion of rent-charge has been redeemed, and the same, from and after the payment of the half-yearly portion of such rent-charge or portion of rent-charge which shall next accrue due subsequently to the time of the payment of such consideration-money, shall cease and be extinguished: Provided always, that no such redemption as last aforesaid shall extinguish or affect any extraordinary rent-charge which would become payable in respect of such land upon any change of the cultivation thereof.

F.

23 & 24 Victoria, cap. 93, sec. 20.

In every other case in which a gross rent-charge is charged upon any land subject to common rights, or held or enjoyed in common during the whole of the year, the Commissioners shall, upon the application in writing of the person entitled to such rent-charge, or of any person liable to pay the same or any part thereof, convene a meeting of the owners of such land and persons liable to pay such rent-charge, of which twenty-one days' notice shall be given in such manner as to the Commissioners shall seem fit; and the majority in value of the persons attending such meeting may determine whether such rent-charge shall be commuted for an equivalent part of the land on which it is chargeable, or be redeemed for a sum equal to twenty-five times the amount of such rent-charge, to be paid by a time to be limited by the Commissioners, and may further determine, if the rent-charge is to be redeemed, whether the redemption-money shall be raised by rate on the persons liable to such rent-charge, or by sale of a portion of such land: Provided always, that if no determination be come to at such meeting the Commissioners may proceed to commute the rent-charge for land as hereafter provided.

23 & 24 Victoria, cap. 93, sec. 31.

Where, under any agreement or award which has been or hereafter shall be confirmed by the Commissioners, the amount of the rent-charge agreed or awarded to be paid instead of the tithes of any parish, and which shall not have been apportioned, shall not exceed the sum of £15, the Commissioners may, if they shall see fit (and without the consents of the owner or owners of the lands chargeable with the said rent-charge, or of the person or persons for the time being entitled to the receipt thereof), by an order under their hands and seal direct that such rent-charge shall be redeemed by the payment by the owners of the lands chargeable therewith, within such time as the Commissioners shall

by such order direct and appoint, of a sum equal to twenty-five times the amount of such rent-charge.

G.

23 & 24 Victoria, cap. 93, sec. 32.

Whenever lands charged with rent-charge under any instrument of apportionment or altered apportionment shall be divided for building or other purposes into numerous plots, and it shall appear to the Commissioners that no further apportionment of the said rent-charge can conveniently be made, the Commissioners may, if they shall see fit, upon the application of any one owner of the said lands, and without the consent of any other owner, or of the person for the time being entitled to the receipt of the said rent-charge, and without limitation as to the amount thereof, by an order under their hands and seal direct that such rent-charge shall be redeemed by the payment by the owner of the lands chargeable therewith within such time as the Commissioners shall by such order direct and appoint, of a sum equal to twenty-five times the amount of such rent-charge.

H.

41 & 42 Victoria, chap. 42, sec. 1.

In all cases where land charged with rent-charge in lieu of tithes is taken for any of the following purposes, that is to say:—The building of any church, chapel, or other place of public worship; the making of any cemetery or other place of burial; the erection of any school under the Elementary Education Act; the erection of any town hall, court of assizes, gaol, lunatic asylum, hospital, or any other building used for public purposes, or in the carrying out of any improvements under the Artizans' Dwellings Act, 1875; the formation of any sewage-farm under the provisions of the Sanitary Acts, or the construction of any sewers or sewage works, or any gas or water works; or the enlarging and improving of the premises or buildings occupied or used for any of the above-mentioned purposes; the person or persons proposing to carry out the above-mentioned works, buildings, or improvements shall, as soon as the said person or persons are in possession of the land, and before the land is applied to any of the purposes aforesaid, apply to the Tithe Commissioners to order the redemption of the rent-charge for a sum of money equal to twenty-five times the amount thereof; and the redemption-money, with the expenses incident to the redemption, shall be paid to the said Commissioners within a time to be fixed by such order, or within any enlarged time the Commissioners may appoint, and the Commissioners shall

apply such redemption-money in the manner provided by the said Acts.

41 & 42 Victoria, cap. 42, sec. 3.

Whenever land has been charged with any rent-charge not exceeding 20*s*., the Commissioners may, if they see fit, upon the application of the owner of such land or of the person entitled to the rent-charge thereon, by an order under their hands and seal, direct that such rent-charge shall be redeemed by the payment by or on behalf of the owner of the said land charged therewith, within such time as the Commissioners by such order shall direct and appoint, of a sum of money equal to twenty-five times the amount of such rent-charge.

41 & 42 Victoria, cap. 42, sec. 4.

Whenever any land has been charged with a rent-charge exceeding twenty shillings, the Commissioners may, if they see fit, upon the joint application of the owner of the land and the person entitled to the rent-charge, order such rent-charge to be redeemed for a sum not being less than twenty-five times the amount thereof, provided that the bishop of the diocese and the patron of the benefice consent to such redemption, whenever the person entitled to the rent-charge is entitled thereto in right of any benefice or cure.

41 & 42 Victoria, cap. 42, sec. 5.

Whenever lands charged with rent-charge under any instrument of apportionment or altered apportionment shall be divided for building or other purposes into numerous plots, and it shall appear to the Commissioners that no further apportionment of the said rent-charge can conveniently be made, the Commissioners may, if they shall see fit, upon the application of the owner or of the person for the time being entitled to the receipt of the said rent-charge, and without limitation as to the amount thereof, by an order under their hands and seal direct that such rent-charge shall be redeemed by the payment by the owners of the lands chargeable therewith, within such time as the Commissioners shall by such order direct and appoint, of a sum of money not less than twenty-five times the amount of such rent-charge.

Mr. T. Smith-Woolley (Vice-President) had great pleasure in proposing a vote of thanks to Mr. Pain for his very suggestive Paper. He had the misfortune, indeed, to differ from him in some respects; but he was not the less obliged to him on that account.

He felt in some degree bound to say something on this subject (though he was always a very unwilling speaker) because he was one of the very few survivors of the original staff concerned in the Tithe Commutation. About the year 1840 he was appointed on that staff to report on voluntary agreements for tithe commutation, and he would repeat, for the benefit of some of his younger friends, the advice he received on that occasion from one of the Tithe Commissioners, Mr. JONES. When he went up, after receiving his appointment, to report himself, that gentleman said, "You look a great deal too young, sir; get a broad-brimmed hat, and make yourself look as old as you can." Whatever he may have failed in, in after-life, he had long since succeeded in not looking too young.

He must confess that he was one of those who thought that the general redemption of tithe-rent-charge was not desirable. Notwithstanding some ominous symptoms, he would hope that on this side of St. George's Channel we might still feel that rights of property were rights, and that they were not to be sacrificed, in any degree, in obedience to ignorant clamour or the agitation of interested parties. As to the extraordinary tithe-rent-charge on new hop-yards and market-gardens, obnoxious as it seemed in some respects, it was as much the right of the person to whom it belonged as any other right to property.

He fully concurred, however, in the desire that some steps should be taken for its redemption, if it could be done consistently with the legitimate interests of all parties; and each case should be dealt with, as Mr. PAIN suggested, on its own merits. Certainly, no body of men could be more desirous than the Members of that Institution to promote good feeling between the clergy and the payers of tithe-rent-charge.

He would also say that great responsibility rested on

them, because there was no body of men who could do so much to promote that good feeling, in this very simple way. They should always advise their landowner clients to take upon themselves the payment of the tithe-rent-charge. That had always been his own practice, and, if universally adopted, it would almost entirely do away with any irritation that now existed between the tithe-owners and the tithe-payers. As a mere matter of business it was, in his opinion, better in every way; the landlord did pay the rent-charge in effect, since he had to make a corresponding reduction in his rent, and if the tenant made default the landlord had to pay it twice over.

The arrangement suggested, moreover, got rid of the difficulties which arose between outgoing and incoming tenants, when the time at which the tithe-rent-charge becomes due does not coincide with the end of the tenancy.

He thought rather too much was made of the clerical element in the question. It was not generally understood how comparatively small a proportion of the tithe was paid to clergymen. He believed fully half of it was in the hands of impropriators or appropriators. So far, at all events as related to the very considerable amount with the collection or payment of which his firm was concerned, not more than one-third was paid to the clergy.

There was another point commonly overlooked. Before the Tithe Commutation, it was the clergy, chiefly, who were the owners of the small tithes, indeed, in the case of vicars who, he took it, greatly outnumbered the clerical rectors, they had, as a rule, the small tithes only. Speaking generally, the principal small tithes were those of milk, lambs, wool, pigs, poultry, and agistment, all of which, except wool, had risen greatly in value of late years, yet the payment in respect of them depends on the heavily-depreciated price of corn. That was certainly an injustice,

however unintentional. It was out of the question to remedy it now, however, nor would it be advisable, if practicable, because, from the highest point of view, that was to say, with reference to their moral influence, it was better that the clergy should cheerfully submit to an injustice which was unintentional and unforeseen.

It would not be good to revert to the old practice, which some present would remember was so well pourtrayed by Cowper in his "Tithing Time in Essex":—

The Priest he merry is, and blythe,
  Three quarters of the year,
But oh, it cuts him like a scythe,
  When Tything time draws near.

And well it may, for then he knows,
  Each bumpkin of the Clan,
Instead of paying what he owes,
  Will cheat him if he can.

Some talk of Mildew and of Frost,
  And some of Storms and Hail,
And some of Pigs that they have lost,
  By maggots at the Tail!

One says, "A rarer man than you
  In Pulpit, none shall hear,"
But yet methinks, to tell you true,
  You sell it plaguy dear.

Now to the landowners undoubtedly, the Commutation was a great boon; but there was a very odd mistake made (for he could not help thinking it was a mistake), in the basis of calculation laid down by the Act. This had operated so as to make the prices of oats and barley affect the averages, out of all proportion to the price of wheat.

In instance, taking £100 of rent-charge, and applying to it the principle laid down by the 57th Section of the Tithe Commutation Act, the result was:—

					Bushels.
Wheat	£33 6*s.* 8*d.*	at 7*s.* 0¼*d.*	per bushel	=	95
Barley	,,	,, 3*s.* 11½*d.*	,,	=	168
Oats	,,	,, 2*s.* 9*d.*	,,	=	243
					506

so that every fluctuation in the price of barley affected the rent-charge very much more than the changes in the price of wheat, the ratio in the case of oats being still larger, the general result being that, whereas wheat had fallen in price very heavily indeed, a slight rise in the average price of oats and barley had been sufficient to counteract that fall.

He would mention in passing, as a matter of professional history, which, perhaps, was not familiar to some of the younger Members, that in the very large proportion of the Midland and Western counties where the tithes were, at the Inclosure, commuted for allotments of land, the almost universal practice was to assume that the tithe-owner was entitled to one-fifth in value of the titheable arable land, and one-eighth of the grass, and to set him out allotments of that relative value.

Coming back to the principle he set out with, he regarded the tithe-rent-charge, though it was not an impost, yet in one sense as a land-tax, and it ought to be so dealt with in practice. To his mind, indeed, the only legislation required was that the anomaly he had mentioned as to the relative incidence of the average prices of wheat should be put right in some way; that there should be some improved method of taking the average sale prices, since it might be open to question whether it was quite fair now; and, lastly, that provision should be made for putting tithe-rent-charge on precisely the same footing as the income-tax under Schedule A—*i.e.*, making the landlords liable, as a matter of course.

Summing up his general objections to any universal measure of redemption, they were these:—He did not think it for the higher interests of the community that the capitalized tithe-rent-charge should be arranged so conveniently and temptingly for manipulation or alienation by future Prime Ministers or Chancellors of the Exchequer.

Moreover, he personally thought it very undesirable in any community that the clergy should be either in appearance or in fact pensioners of the State.

Lastly, there was this practical difficulty, which appeared to him, as a man of business, conclusive against extending the existing statutory powers of redemption as set out by Mr. PAIN. On the one hand, one could not give the clergy less than 33 years' purchase on their net income so long as the funds remained at or about par, otherwise their income would be lessened; on the other hand, as an agent for landowners he did not see his way to giving 33 years' purchase—6 or 8 years more than its market value—to get rid of it.

There was an incidental point to be considered. In taking, as Mr. PAIN very properly did, the net income, he deducted the rates according to the present basis of assessment. He (Mr. WOOLLEY) thought the system of rating which prevailed at present could not possibly be endured very much longer; and when personal property came to be rated, the present net income from tithe would probably be sensibly increased.

One point which often struck him forcibly was the extreme inequality of the tithe apportionments, and the entire absence of any serious grumbling about it.

If there were any Kentish Members present they would probably be aware that in Romney Marsh, for instance, there will frequently be found two arable fields divided by a drain, one charged with 1*s.* an acre or thereabouts, the other 8*s.*, 10*s.*, or 12*s.* an acre. The history of that of course was, that at the time of the Commutation that at 1*s.* was grass and covered by a *modus;* but, beside the cases that could be explained in that way, there were many glaring inequalities all over England, but it was out of the question that they could be re-adjusted now.

Mr. R. C. Driver (Fellow) also regarded himself as a link with the past. He recollected, when serving his articles with Mr. Marmont, of Bristol (before the Tithe Act was passed), that tithes were either taken in kind, or composition by agreement was arrived at as between the lay impropriator or vicar (as the case may be) and the tenant, and if they could not agree by composition they were then taken in "kind." He was on several occasions instructed to go to the parish of Almondsbury, in Gloucestershire, to set out by small flags the tenth sheaf of corn, or cock of hay, so that it could be taken to the tithe-barn, each parish then having a store-house for that purpose. Thus he might regard himself as one of the "ancients," and he supposed that was why he had been called upon to second (which he did with great pleasure) the vote of thanks to Mr. Pain for his Paper.

The state of things which existed before the Tithe Act was passed caused a considerable amount of friction and unpleasant feeling. It was believed that the Tithe Act would be the means of putting an end to these feelings, but unfortunately the "extraordinary tithe" agitation commenced, and agricultural depression set in, and the result was that the tithe question had been opened up again.

It seemed to him (if Mr. Pain would excuse his saying so) a most monstrous proposal that he should propound a compulsory sale of the tithe-rent-charge to the landowner at 33 years' purchase on the net amount, when in the market these very rent-charges would not sell for more than 24 or 25 years' purchase, and even sometimes less, which he could testify to as being a valuer and auctioneer of long standing, and having had to do largely in the sale and purchase of tithe-rent-charges. Virtually this would be compelling the landowner to pay at least 25 per cent. more than market value. The commuted apportionment or tithe-rent-charge

varied according to the seven years' preceding averages; and then, again, the difficulties of calculation sometimes were very great consequent on occupation changes, and reapportionments had to be made, and, moreover, the rates and taxes varied year by year, increasing, as everyone knew. Thus the income from tithes was not a solid or fixed income, and was therefore very different from Consols or other Government securities, and he was at a loss to understand why Mr. PAIN should propose to charge the landowner 33 years' purchase for that which in the market was only worth, at the most, 24 or 25 years' purchase. It seemed to him, if a compulsory sale were made, it ought to be the other way as regarded years' purchase. The original object of the Act was to constitute tithes into a rent-charge, payable entirely by the landlords; but, unfortunately, landlords did not adopt this course, and went on letting their farms subject to the rent-charge, leaving the same to be paid by the tenants. But he (Mr. DRIVER) thought that all difficulties could be obviated if, in the future, landlords would take this payment upon themselves, letting their land as free therefrom. This would be the most desirable course for all parties. The only justification he (Mr. DRIVER) could see for compelling landlords to redeem the tithe-rent-charges was where land had lost its agricultural character, and had become building land, or where it became necessary to subdivide properties into several small occupations; and in this instance the Tithe Commissioners had power to enable the tithe-owner to sell, and the landlord to purchase, at not less than 24 years' purchase on the commuted or apportioned amount. At the present time landlords had great difficulty in selling their land at all, and then only at a lesser number of years' purchase than formerly, and upon a reduced rental value; and just now, when depression in agriculture was at its height, to have it made compulsory on the part of the

landowner to purchase his tithes at 33 years' purchase, would be only to add to his present troubles and difficulties, which certainly was neither necessary or desirable.

He thought, therefore, that things should be allowed to remain as they are, the landlord (as before suggested) taking upon himself the payment of the rent-charge, and thus getting rid of the difficulty and unpleasantness now experienced.

Mr. E. P. Squarey (Vice-President) was gratified to hear a Paper on this very interesting subject by a gentleman who was once his pupil, and he very cordially concurred with Mr. Woolley and Mr. Driver in the vote of thanks to Mr. Pain.

He had little to add to the views which had been expounded by Mr. Woolley and Mr. Smyth, whose conclusions were distinctly that the causes which had given rise to the large amount of friction connected with the question of tithes were temporary and evanescent. The removal of these causes by means of some such arrangement as that suggested by Mr. Woolley, namely, that the landlord should pay the tithe-rent-charge instead of the tenant, would be a complete and satisfactory solution of the question.

He concurred with Mr. Pain in thinking that there were circumstances—and, indeed, the legislature had recognized their existence—under which it was important that the power to redeem tithes should exist; but if tithes were to be redeemed, he could not agree with Mr. Driver in thinking that 25 years' purchase on the net value, after rates and taxes had been deducted, would in any degree commend itself to the justice or propriety of the case. The market value of the article was undoubtedly not more than 24 or 26 years' purchase, depending on its

character and net annual income, and although rent-charge in arrear could only be collected for a period not exceeding two years, yet, if the collector were judicious, there need be no money loss. However, he was looking at the position of the receiver of tithe-rent-charge, and it was quite clear that in no possible way could the produce of the sale of tithe-rent-charge, on the basis of 25 years' purchase on the net amount, be so invested as to yield to the recipient of the tithe-rent-charge, lay or clerical, anything like the same income at the present time. He therefore thought that 33 years' purchase on the net income of the tithe to be redeemed was only fair and right to the tithe-owner, and he conceived that even then there might be occasions when a loss of income would ensue.

The Paper comprised a clear and concise statement of all the recent legislation on the subject, which would save much trouble in looking through the very large number of Acts in the Statute Book, and was thus most valuable.

Mr. E. Smyth (Associate) said he had not given to the subject the attention devoted to it by Mr. Pain, who had just put before them a very serviceable compendium of existing enactments; but he thought his proposals were open to one or two objections. Although out of 33 years' purchase upon the net the clerical tithe-owners (as Mr. Smith-Woolley had indicated) could get no more than they at present received, yet lay impropriators, who may have bought tithe-rent-charges at from only 20 to 25 years' purchase, would have an enormous advantage by selling to reluctant landowners at 33, because it was proposed that at the instance of either party, tithe-owner or landowner, a sale should take place.

Then, as to the source from which the purchase-money

should come, he supposed there would be no objection, on principle, to the landowners obtaining the money in exchange for an ordinary terminable annuity; but he very much doubted if landowners generally would consider such an arrangement to be to their advantage, and especially under present agricultural circumstances; they would rather continue paying the tithe than have to pay annually a larger sum, of which a portion was to be for the replacement, at the end of the term, of the capital they borrowed. An alternative had been alluded to, namely, the redemption procedure of the Irish Church Act; and he therefore thought it might interest the Meeting if he were allowed to read (from "Hansard") small portions of the discussion of that question between two such masters as the present Premier and the political economist, Mr. FAWCETT. On 3rd May, 1869, the House being in Committee on the Bill, Mr. FAWCETT said :—" He regarded this as a 'financial puzzle,' and he thought financial puzzles should be looked on with suspicion. They might complicate the matter as much as they liked, but they could not get rid of this, that for no valid reason or purpose whatever did they allow the permanent obligation to pay a sum of money to be commuted into the payment of the same amount of money for a period of 52 years. The right honourable gentleman (Mr. GLADSTONE) said,—'You can commute it at 22½ years' purchase;' and, supposing that the landlord had not the power to pay the money, the right honourable gentleman went on to say—'We will manage the transaction for you, and will accumulate money to pay off the charge.' But why should that money be devoted for the benefit of the landlords in Ireland, and for their benefit only? The transaction was simply this—that £2,250 was appointed to be lent to the Irish landlords who had rent-charges of £100

a year; the right honourable gentleman said he would put down £78 15*s.* as interest on the money lent, or £2,250, so that the landlord should have £21 5*s.* each year; in 52 years this would reach £2,250, and this was to be given as a present on condition that the landlord applied it in commuting the tithe-rent-charge."

To this Mr. GLADSTONE replied:—"Let the arrangement stand upon its own merits. To that arrangement there were three parties—the Exchequer, the Church Fund, and the landlord. The Exchequer had to lend money at 3½ per per cent. In ordinary times that was not a bad transaction for the Exchequer. As regarded the Church Fund, a property usually sold at 17 and a fraction years' purchase was to fetch 22½. That was not a bad transaction for the Church Fund. As regarded the landlord, instead of a perpetual annuity, he was to pay the tithe-rent-charge for 52 years. That was not a bad transaction for the landlord, and, at the same time, a great object of public policy was attained—namely, the extinction of the rent-charge."

Mr. FAWCETT subsequently rejoined:—"It appeared to him that it was not a good thing for the national Exchequer to lend money at 3½ per cent. per annum, upon property which, according to the right honourable gentleman's own statement, was only worth 22½ years' purchase. If money were lent at 3½ per cent. per annum, it ought to be lent upon property worth 30 years' purchase at least. Then, with regard to the Irish landlords, the right honourable gentleman said that, at the end of 52 years, they would get possession of the tithe-rent-charge without paying a single farthing for it. But it was for that very reason that he objected to the arrangement."

Mr. GLADSTONE, in his closing remarks, said:—"He must still recommend this clause to the committee as a fair

adjustment of the several considerations which bore upon this matter. There was not a clause of this Bill which would stand, if he might say so, a microscopic investigation."

That seemed to him (Mr. SMYTH) to be about as large a confession of arithmetical impropriety as could be expected from a great minister, able and determined to carry out a measure which, whatever its imperfections, he held to be essential to the welfare of Ireland. But in a calculation designed to defend the substitution of payment during 52 years for payment for ever, it need not surprise one to observe a provision that the man owing annually for tithe-rent-charge £100 should be meanwhile allowed to settle his bill by paying four score. He was speaking only of the arithmetical aspect of the case, and with reference to the idea of a parallel scheme for England. He was not venturing an opinion as to the economic expediency of the arrangement; but, if it were expedient, it appeared to him to be barely practicable. In the Irish case the landlord was to buy at 22½ years' purchase on the amount, less rates;* and the annual payment he would continue to make during 52 years was nearly 4½ per cent. on this purchase-money. Of it, 3½ was to be regarded as interest, and nearly 1 remained for yearly accumulation as a sinking fund at 2½ per cent. compound interest. But in England no one would propose that the landlord should buy for at all so little as 22½ years' purchase the net tithe-rent-charge by which his rent would be increased. English rents had heretofore sold, and would he hoped continue to sell, at about the same years' purchase as income from Government securities themselves; and it did not seem to him therefore that an

* Irish Church Amendment Act, No. 2, 1872.

appreciable surplus would be left for accumulation as the sinking fund. He only mentioned what struck him as difficulties in the proposed compulsory redemption, because he was uncertain whether, after all, the troubles in connection with tithe-rent-charge were of so great and unusual a character as to be met by nothing short of so forcible a measure.

Mr. R. Sturge (Fellow) quite concurred with most of the observations that had been made. He thought, before embarking on the very large operation which the redemption of tithe-rent-charge would be, it was necessary to consider what would be the advantages to be derived from it. He thought the disadvantages attaching to tithe-rent-charge arose in the first place from what had been so well described as the friction between the payers and the receivers, and another cause was that which applied to all fluctuating payments. The first and gravest cause would be entirely remedied by the tithe-rent-charge being legally payable only by the landlord instead of by the tenant. He believed that was the intention of the legislature when the tithes were commuted. How the very general practice which had arisen of their being paid by the tenants came into vogue he did not know, but there was no doubt that, although there was nothing like the friction now that there used to be when tithes were collected in kind—which he was not old enough to remember—yet he thought all of those present who had to do with farmers would allow there was still a good deal of unpleasantness between the payers and the receivers, especially when it happened, as in late years, that high tithe-rent-charge did not coincide with high prices.

It was obvious that there were difficulties in the way of redemption, both as to the number of years' purchase and

in many other ways. A receiver of tithes would manifestly not be satisfied with a reduction of his present income, while the landowner might fairly object to pay more than the market value of the tithe-rent-charge.

He thought also that the present period, which was something like a transitional time in the state of agriculture, would be a very unfortunate one for an attempt at such a large operation as the redemption of tithe-rent-charge. If there were any superfluous legislative energy in that direction, it would be better directed in the way he had indicated, by making the tithe-rent-charge on the land payable only by the landlord.

Mr. Sidney Woolf (Associate) said that, as the question was of a somewhat legal character, he might, perhaps, be pardoned for taking part in the discussion.

It seemed to him the question was not simply a question of what number of years' purchase was to be paid for the redemption of the tithe-rent-charge, nor whether this was a particularly fitting opportunity for its redemption. He did not gather from the excellent Paper just read that this was the object of the author in introducing the question. The object, as he gathered, was a far more general one, namely, whether it was desirable to redeem these tithe-rent-charges; and he must say he had listened attentively to the Paper and to the observations offered, and ventured to support the views of the author and the observations made in that behalf. He could not help remembering that tithes in kind were found to be objectionable, and it was necessary to get rid of those tithes in kind by substituting a tithe-rent-charge; and, as he understood, the object of the present discussion was whether it would not be desirable to go one step further, and get rid of the tithe-rent-charge.

He ventured to think, notwithstanding all that had been said on the point, that it was very desirable to get rid of it. It was not suggested, as seemed to be imagined by some speakers, that the tithe-rent-charge should be confiscated, or that the tithe-owner should be deprived of his property. What appeared to be contended by Mr. PAIN was that, as the existence of tithe-rent-charge created a certain amount of friction, it would be expedient to get rid of it, and at how many years' purchase it should be redeemed appeared to him to be a minor question in relation to this subject. Tithe-rent-charge was, he thought, a very great anomaly, and it could not be compared to taxes which were paid to the State, for this tithe-rent-charge was paid to a particular person. An observation made by Mr. DRIVER amounted to a strong argument for the redemption of tithe-rent-charge. He (Mr. DRIVER) said it must not be supposed that the clergy were recipients of this tithe-rent-charge, but that, on the contrary, it was the impropriators, or lay rectors, who were to a great extent in receipt of it. What did that mean? That a tax, originally intended not for impropriators, or lay rectors, but for the clergy themselves, had passed into other hands. That being so, it seemed to him a strong argument that those persons who had acquired the tithe-rent-charge, admittedly at prices far below its value, and therefore could afford to sell it at much less than that put on it by Mr. PAIN, should be compelled to admit of the redemption of that tithe-rent-charge. It seemed to him desirable that this impost, which admittedly gave rise to great friction between the payers and owners, should receive the serious consideration of the legislature, and he thought that the logical consequence of the commutation of tithes in kind was the redemption of tithe-rent-charge.

Mr. Pain, in reply, begged to thank the Members for the kind way in which they had received his Paper. It had been criticised in a more lenient manner than he had expected. He anticipated being severely handled, as 33 years' purchase on the net annual value was rather a bold suggestion. If he might he would explain one or two points which, perhaps, had not been noticed when he read the Paper.

First, tithe-rent-charge was commuted some years ago for a cash payment. Under that commutation provision was made for redeeming it. What he stated was that those provisions were inadequate, as time had shown. If it were admitted that there still remained the necessity for redemption, as he believed to be the case, all he asked was that such redemption might be put on a better footing than existed at the present moment. He begged to direct attention to the last clause in the Paper—"As an alternative for cases where the landlord may be unwilling to find the redemption-money or borrow it, the onus of payment of the tithe-rent-charge accruing on his land in one sum should attach to him;" and he thought some of the gentlemen who had just spoken had not observed that. He did not wish to make any radical reformation, however good it might be, without some reason, and all he wanted was a practical and fair method of dealing with the question of tithe-rent-charge redemption.

It had been suggested that he was interfering with rights. He had not touched upon the question of rights. He admitted the tithe-owner had a perfect right to claim his own, but it was a long time ago now since tithes were commuted, and people who paid tithe-rent-charge had forgotten its origin, and consequently a great deal of ill-feeling sometimes arose between the tithe-owner and the

tithe-payer, and he desired to remove the cause of that friction, if possible, by legislation. The very fact Mr. WOOLLEY had mentioned, of the inequality of tithe-rent-charge in one field as compared with that of another similar field adjoining, was a proof that some new legislation was required, because tenants now-a-days did not understand the cause of those inequalities, and it was impracticable to explain such seeming discrepancies to 200 or 300 tenants at an audit.

Then as to treating it as a land-tax, he begged to differ from that. A tithe-rent-charge was a fluctuating charge; land-tax was a fixed charge. It was always intended that the tithe-rent-charge should fluctuate with the varying value of provisions, not only oats, wheat, and barley, but other commodities, such as milk, butter, &c.

It had been observed by Mr. STURGE that the present moment was not a fitting time for bringing on a measure of this sort. He had not so much considered the opportuneness of the time for bringing in an Act of Parliament as the occasion offered for discussing a question which had recently been brought before them by the agitation on the subject.

THE PRESIDENT said it now became his duty to sum up the discussion and to express, on behalf of the Institution, the conclusions which, he thought, had been arrived at.

Like Mr. SMITH-WOOLLEY, he was old enough to have begun work with the Tithe Commutation Act, and had never ceased to have something to do under it until the present time.

It seemed to him that the three separate branches into which the subject was divided had been a little confused with each other in the course of the discussion. The

work began, *i.e.*, uncertain amounts were reduced to comparatively certain amounts, and a fixed tithe-rent-charge in lieu of an uncertain payment, in the year 1837. That was commutation of tithes. The apportionment of the tithe-rent-charge was altogether another branch of the business. It was the apportionment that Mr. SMITH-WOOLLEY found fault with rather than commutation; but it must be borne in mind that what it was sought to fix at the time of the commutation was the amount of profit, so to speak, which the tithe-owner had derived from the land during the previous seven years, *i.e.*, from 1828 to 1835. If the land were covered by a *modus* representing a very small liability, a small sum was apportioned, and it was so much the better for the owner of that piece of land; but it must not be charged against those who apportioned the tithes that they did anything wrong because on one side of a hedge there was a piece of land subject to a small *modus*, and on the other side a piece subject to a large amount of tithe-rent-charge. That was unavoidable, and must continue so long as the tithe-rent-charge continued to be collected. The redemption of the tithe-rent-charge was altogether a different thing, and the redemption was provided for by numerous Acts of Parliament, as would be seen on referring to the appendix to Mr. PAIN'S Paper. The redemptions that had been provided for from time to time were redemptions of small sums only, to provide for particular cases, such as the development of land into building land, where tithe-rent was a great nuisance. There was much to be said for the landowner, on whom the costs of these redemptions fell. It was hard that he should be called upon to pay £200 or £300 for the redemption of tithes after his land had been let, say on a lease which bound the lessee to pay all rates and taxes; but there was no plan

that he (THE PRESIDENT) knew of by which the landowner could escape from a payment which, in a case of this kind, was an absolute loss to him.

Mr. R. C. DRIVER observed that there was a scale by which the Tithe Commissioners apportioned the payments between the landlord and the lessee.

THE PRESIDENT (resuming): He feared he would shortly be called upon to pay some hundreds of pounds for the redemption of tithe-rent-charge, without the power of recovering from his lessees, except by the aid of some machinery which would cost more to put in motion than the matter was worth.

The general redemption of tithe-rent-charge was a totally different matter from the foregoing. It had never been attempted yet, and he gathered that the object of the Paper was to suggest that a general redemption of tithe would be a very desirable thing to bring about. He had himself suggested it in that room, and he was still of opinion that the redemption of tithe-rent-charge would be an extremely desirable thing if a mode could be devised for satisfactorily carrying it out; and when he saw how cleverly it had been abolished in Ireland, it occurred to him that the farmers and landowners of England had just as much right to ask to have their tithe-rent-charge swept away. This, as he had shown on a former occasion, could be done without cost, beyond the payment of interest for 42 years, if the Government would procure the money on their own security at 3 per cent., and lend it to the landowners at 4 per cent. the tithes to be redeemed at 25 years' purchase, which would be 4 per cent. The landowner would then continue to pay the same for the borrowed money as he did now for

the tithe-rent-charge, and the 1 per cent. profit made by the Government would extinguish the tithe-rent-charge in 42 years.

The general opinion, as he gathered it, seemed to be that 33 years' purchase was too high, and that 25 years was the outside price that should be paid, and that was, no doubt, a sound opinion.

Mr. Driver: Twenty-five years' purchase on the commutation amount, less the deductions.

The President (resuming): Payments had been 10 per cent. above the commutation amount, but a period was approaching when there would be little difference between the commuted sum and the actual payment.

One of the speakers had said that he regarded the tithe-rent-charge as a land-tax. If so, he (The President) ventured to submit that it was a very great reason why it should be redeemed, for he believed that it was a point upon which all were agreed that the land-tax should be redeemed.

He was not quite sure, when Mr. Smyth was speaking, if those who had discussed the system which he (The President) had suggested, and which had been followed in Ireland, had a clear notion of what was intended. It was not that the landowner should pay a larger sum per annum, but that he should pay exactly the same sum for the borrowed money as for the tithe-rent-charge.

Reference had been made to the practice of regarding the rent-charge as one-fifth of the rent of arable land, as against one-eighth of grass land. His experience was that one-fifth was taken in the case of arable land, as against one-seventh of grass land; and for this reason. Assume

that the rental value of arable land was 30*s.* an acre, the tithe would be 6*s.* That same land laid down to grass would be worth 42*s.*, owing to the difference of cost of labour; $\frac{1}{7}$th of 42*s.* would give a tithe-rent-charge of 6*s.*, which was a fair proportion.

Many persons, when they referred to the average price of corn, did not exactly understand the basis on which the average was taken. Wheat taken at 7*s.* 0$\frac{1}{4}$*d.* per bushel would be 56*s.* per quarter, as the average price of wheat in the seven years preceding the commutation. The present highest price in his county was 50*s.* per quarter, and he had sold the best quality wheat at 50*s.* in the local market, which showed the difference between the present price and that of 1835. The average price of barley was 3*s.* 11$\frac{1}{2}$*d.*—say 4*s.*—or 32*s.* per quarter. He had sold this year the best barley in the same market at 48*s.* per quarter. Then the commutation price of oats was taken at 2*s.* 9*d.*, or 22*s.* per quarter, while oats could not be bought at the present time under 25*s.*, and sometimes 26*s.* and 27*s*, per quarter.

To sum up the matter, he gathered from the discussion that all were agreed (1) that some legislation to make the tithe-rent-charge chargeable on the landlord would be desirable, and (2) that the present fluctuating character of the charge should be got rid of when the rent-charge sell to par again, as it would before long, when it could be fixed at that level as a hard-and-fast basis.

He thought, also, that a further alteration would commend itself, viz., that instead of the tithe-owner being rated for his tithe a sum should be taken off the tithe-rent-charge, equivalent to the amount of rates and taxes. The parish would be no loser by the arrangement, because the land would be subject to higher rent and rates if the tenant were subject to a lower rent-charge; that is to say, in fixing the

rateable value the lower sum would be taken from the annual value of the land, instead of the higher sum, as now, so that the landowner would pay the rates on the tithe instead of the tithe-owner. If that could be brought about it would remedy one of the greatest sources of complaint amongst clerical tithe-owners.

The vote of thanks having been put and carried unanimously, the Meeting then adjourned.

PAPER 111.
No. 194.

FREEDOM OF CONTRACT BETWEEN LANDLORD AND TENANT.

BY E. RYDE (PRESIDENT).

Read at the Ordinary General Meeting of THE SURVEYORS' INSTITUTION, *March 12th*, 1883.

THIS Paper is intended to elicit from the Members an expression of opinion on the subject of agricultural tenancies, and to remove, if possible, misapprehensions, if any should exist, among tenant-farmers, landowners, and others interested in land, especially with reference to assistance which may be derived from legislation. The Paper relates to agricultural tenancies only; and it will be necessary, in the first place, to explain what is intended by the expression, "freedom of contract."

For the last 50 years, at least, efforts have been directed to the removal of encumbrances upon land. "The Copyhold Enfranchisement Acts," "The Enclosure Acts," "The Tithe Acts," "The Land Tax Redemption Acts," and many others, are all evidences of these efforts, and their success must be generally admitted.

"Freedom of contract" in connection with this subject, in its best and most desirable form, is well illustrated by the assumption of a negotiation between the owner in fee-simple of a piece of landed property which has been fully benefitted by all the before-mentioned occurrences, and a responsible tenant, possessing the requisite capital and skill for the

proper cultivation of the land. The terms which might be expected to result from such a negotiation would probably be more satisfactory to each party than any which might result from reference to "The Agricultural Holdings Act" or to any custom of the country in which the property is situated.

It is also in accordance with "freedom of contract" if a landowner lets to a tenant a farm subject to customs and covenants which are regulated by the particular custom which prevails in the county in which the farm is situated, so long as the tenant is willing to hold his farm subject to those customs, and the landlord is also willing to let it on those conditions.

Again, it would not be inconsistent if "The Agricultural Holdings Act" were adopted as the basis of letting, either in its entirety or with modifications; but it is essential in every case that the terms of the letting should be such as are mutually acceptable to, and have been agreed upon by, both parties.

But "freedom of contract" is destroyed or reduced to a nullity if the owner in fee of a piece of landed property be precluded from letting it except upon terms prescribed by an Act of Parliament; and it would be more than destroyed, and an injustice would be done, if a tenant who, under "freedom of contract," had entered into covenants, were to be relieved from the performance of those covenants by subsequent legislative enactments.

This is not a political question regarded from any point of view. It is a question in which all political parties are equally interested. We have been passing through a period of agricultural depression, unexampled probably for its length and for its severity, at all events within the present century; and the losses which farmers have sustained owing

to the want of sunshine and fruitful seasons have so irritated and distressed them that some of them have been easily persuaded that they are the victims either of defective legislation or of some cause which may be removed by legislation, and in this belief they have been stimulated by events which have happened elsewhere, and by theories promulgated by parties more or less interested, for secondary reasons, in keeping up an agitation on the subject.

Such being "freedom of contract," the question arises, whether there are any reasons, either from a public point of view or in the interest of the tenants, of such importance as to render its continuance impolitic. From a public point of view no injury can arise from its continuance, unless its operation should tend to prevent the tenant from cultivating his land in such a manner as to obtain from it the largest amount of produce, and to maintain the same rate of production throughout the whole of his tenancy; which might not be the case if, during the latter years thereof, it were to his interest to exhaust the land by bad farming.

It must be admitted that no industry or business has been more largely improved during the last 50 years than that of agriculture. Wet lands have been drained, crooked and inconvenient fences have been removed and straightened, small fields have been thrown together, hedge-row timber has been cut down, wide hedge-rows have been grubbed up, farm homesteads have been improved, roads have been made, and many other things, too numerous to mention in this Paper, have been done, all testifying to the fact that, under a system of "free contract," landed estates have increased in value, and that agriculture, as an occupation, has taken up its position as a skilled industry.

The other consideration has reference to the interest of the tenant. Is he competent to make such terms with his

landlord as will enable him to get a good living, or is he at a disadvantage in the negotiation? It has been said that this is a question of right against might; and the critics who have suggested this expression have assumed, for what reason is not apparent, that the right is always on the side of the tenant, and the might on the side of the landlord. Whatever may formerly have been the case, there are few in this audience who do not know from experience upon which side lies the advantage at the present time, seeing the number of landlords who have farms on their hands which they cannot let, and for the proper cultivation of which they have not themselves sufficient capital. There is also a large amount of experience as to the opportunity at the command of a tenant with capital, to negotiate for a good farm on terms most beneficial to himself, and it is not surprising to find that some of the largest agents with the greatest amount of experience think that we are passing through a period when a good tenant, eligible in every respect as regards capital and skill, can without difficulty get a farm almost on his own terms.

Before a sound opinion can be formed upon the expediency of interfering with "freedom of contract," it will be as well to look at the circumstances out of which the proposal to do so has apparently arisen.

As to the real causes of agricultural depression, there can be very little doubt that the excessive rainfall which occurred during so many successive years, caused a diminution in the yield of corn, and a depreciation in the value of that which was produced, which was sufficient to affect the farmer's profits to the entire extent of the rent which he paid for his land. Taking everything into consideration,—the decrease, both in quantity and quality, of the corn crops, the increased expense of and damage to the hay

crop, and serious losses in flocks and herds,—it is easy to account for a loss of tenants' capital, equal in the aggregate to at least one-half of the total capital of the tenant-farmers of England. At the same time foreign competition, stimulated by low freights, owing to general depression in trade, cheapened the price of corn in this country, notwithstanding our lower yield.

It is contrary to all experience of previous periods of distress that this state of things can continue, and patience, where the tenant's resources are not wholly exhausted, may be trusted to do more for him than it has ever been found possible to do for him by legislation, either here or elsewhere.

In any event, if mutual co-operation and kindly feeling between landlord and tenant cannot succeed, it is not likely that legislation or compulsory enactment of tenant-right will answer when the other has failed. It has been alleged that the existence of large estates is injurious to the tenant's interest, but men of great experience now affirm that if there had not been in the country a substantial number of large landowners, but only small proprietors, the state of things would have been much more disastrous than it is at the present time. Owing to the existence of wealthy proprietors, a large amount of assistance to the tenant has been possible, and has been fully accorded, so that the crisis has been tided over in a manner which could not otherwise have occurred.

There are some who think that the customs of primogeniture and entail are injurious to agriculture, but persons who entertain those opinions could hardly point to a single instance in which the agricultural distress has been aggravated by the existence of these particular customs.

The value, to the tenant, of the law of distress has been

supported by the evidence of experience, for had there been no such law it would not have been possible for the landlord to have assisted him with what has practically been equivalent to a loan of money without interest, by allowing rent to remain in arrear for very considerable periods. In the absence of such security as that afforded by the law of distress, the landlord must have insisted upon prompt payment, and the tenant must either have borrowed the money at a high rate of interest or have succumbed to the pressure of the times.

In estimating the advantages to the tenant which are expected to result from an alteration of the present practice, the effect upon his capital and means must not be overlooked. Whatever be the system adopted, whether it be the compulsory application of "The Agricultural Holdings Act" in its entirety, or whether it be only borrowed from that Act: whether it is a Surrey custom, a Lincolnshire custom, or any other custom of the country, which is to govern the amount of tenant-right, it must always be borne in mind that the amount, whether great or small, which an outgoing tenant has to receive, must inevitably come out of the pocket of the incoming tenant, and must to that extent reduce his capital and limit his powers to cultivate land. Those who hold that the tenant's business is to use all the capital which he possesses in the cultivation of his land, have always been in favour of abolishing those customs under which tenant-right is paid, and of freeing the incoming tenant from money payments as far as circumstances will permit.

In discussions, in this room, on several occasions the custom of the county of Surrey, which is one of the most onerous of all the customs in England, has been absolutely condemned as tending to bad farming, on the ground that it locks up a large amount of capital from which a tenant

should derive benefit by the use of it in his business; but the present demand in some quarters for tenant-right appears to go much beyond anything that has existed in the past. What has been advocated at these discussions, is that the tenant should enter on a farm in good condition, and should be bound so to leave it at the end of his term.

Absolute security for the performance of covenants in either case does not exist, but it is of course beyond dispute that the tenant-farmer who pays a large valuation on entering his farm, and who is to be entitled to be paid a similar valuation on leaving it, does afford to his landlord and the incoming tenant greater security for the performance of his covenants than one who does not make a similar payment, inasmuch as the landlord has a claim for rent due and for dilapidations, which can be set off against the amount of valuation of the tillages and tenant-right receivable by the outgoing tenant. Nevertheless, it has been proved that a covenant to farm the land, according to the rules of good husbandry, accompanied by covenants which provide that, if straw be sold from the land manure is to be brought back in its place, and a few others of a similar kind, are sufficient. But whichever view is taken, and whatever plan is adopted, it is capable of being carried out under "freedom of contract" better than it could possibly be done by compulsory enactment.

One of the consequences to the landlord of abolishing "freedom of contract," and introducing compulsory methods for letting land, would be a most serious and immediate decrease of the value of landed estates. Already the agricultural depression, accompanied by the agitation for legislation which has taken place, and the uncertainty of what may happen, has removed landed property from its position as one of the highest classes of security, and has

rendered it a very much less marketable property than it used to be; and there are those who fear that if legislation is adopted, in view of restricting the "freedom of contract" in dealings with land, the depreciation in value will be very considerably increased. No man of limited means could hold land if one of the consequences of having it thrown upon his hands should be a very large money payment to the outgoing tenant.

In considering the benefit, to the tenant, of compulsory tenant-right, it must be remembered that the only tenants who can derive the benefit at the present time are those who intend to give up their farms and to abandon the pursuit of agriculture in the future. It is not proposed that a tenant should have a claim for what is assumed to be an improvement made by him until he has arrived at the end of his tenancy; and if at that time he is not intending to relinquish agriculture as a pursuit, the effect of his being paid under compulsory enactment for certain acts of husbandry would only be to him the receipt of the money temporarily, as he would have immediately to pay it away to some other outgoing tenant if he were himself to become an incoming tenant of another farm; and if this be so, it is quite impossible that any enactment of compulsory tenant-right could benefit a present tenant struggling in the existing agricultural depression. An increase of tenant-right in land must affect the tenant to the extent of the lock-up of capital which it occasions, and must diminish the profits of the farm to the extent of the interest on the capital so locked up. It is, therefore, very difficult to see how security for the payment of tenants' improvements can assist the tenant in times of depression.

The contents of this Paper, which, in itself, is not intended to be a definite exposition of any principle, may be summed up as follows:—

1. The circumstances under which it has been written are set forth.
2. "Freedom of contract" as between landlord and tenant has been explained.
3. The absence of "freedom of contract" has been referred to.
4. The expediency of retaining "freedom of contract" and the effects of so doing have been discussed.
5. The consequences of restricting "freedom of contract," and resorting to compulsory legislation have been touched upon.
6. The consequences to the landlord of interfering by legislation have been suggested, and
7. The limited advantages to the tenants have been referred to.

These are the subjects upon which discussion is invited, and the short time within which the Paper has been prepared must be urged by way of apology for its defects.

Mr. E. P. Squarey (Vice-President) said it afforded him great pleasure to propose a vote of thanks to The President for the Paper he had just read, which was a very clear and concise exposition of the principles and practical application of the system of free contract, and would serve as an excellent text for what, he believed, would be a very useful and instructive discussion.

The question before the Meeting was no new one to the Institution. So lately as the last month of 1881 and early in 1882 Papers were read by Mr. Tuckett, Mr. Pattisson, and himself on this and cognate questions, and a large number of Members expressed their views very fully on the points raised in those Papers. It might, therefore, very naturally be asked why, having so recently thrashed out the subject, was it necessary to discuss it further? The answer

was that in the interval since these Papers were read it had become more and more apparent that the question of tenants' compensation was far from being settled. It was sufficiently clear, from the Bills brought forward in Parliament, and from what transpired at every tenant-farmers' club and at every chamber of agriculture, that there still prevailed a very great divergence of views as to tenants' compensation; and when, at the commencement of the present Session of Parliament, it was announced from the Throne that tenants' compensation would form the subject of early legislation, it became the duty of all parties connected with land to look further into the question with the view of determining what form a Tenants' Compensation Bill should take, having regard to the different interests involved.

It appeared to him that preservation of freedom of contract should be the essence of any Bill of the kind brought in by the Government, and in saying this he felt confident of the fullest support from Members of The Surveyors' Institution. Any legislation of the kind would, he earnestly hoped, go upon the lines of leaving the landlord and tenant at liberty to make what contract they liked in regard to the terms of quitting, as to concessions of rent, repairs, and payment of tithes and poor rates, and equally free as to any arrangements they choose to make with reference to the compensation which the tenant would be entitled to on the termination of his tenancy.

It should be remembered that the tenant had a common-law right to compensation. When a landlord and tenant came to terms for a field, the moment the word passed the landlord's lips that he accepted the tenant, and the latter proceeded to plough or sow, at once a contract of tenant-right of a limited form arose. The only question was what form in these days of advanced agriculture was that tenant-right to assume? It was clear that it must be such as was

consistent with the interests alike of the landlord, the outgoing and incoming tenants, and the land; but he did not hesitate to say that much that had been said and recommended in this way during the past two years had been directed too largely to the interests of the outgoing tenant, to the disregard of the interests of the incoming tenant and the landlord. Before an audience composed almost entirely of gentlemen interested in landed estates, he could not better illustrate his views than by quoting some passages from a digest, in the last number of the "Journal of the Bath and West of England Society," of Mr. LITTLE's Report on the Western and Southern Counties, prepared by Sir THOS. ACLAND and Mr. ACLAND, whom they had the honour to welcome that evening. Mr. LITTLE said:—"If I venture still to uphold the principle of freedom of contract, it is not from superstitious veneration for an old precept, but from a sincere conviction that in the long run the injury to be done by limiting that freedom will more than counterbalance any possible gain which can result from such a course." He went on to say:—"It would not be justifiable, under cover of giving all existing and future tenants an indefeasible security for their improvements, to give them compensation for disturbance, or a saleable goodwill of their holding, or to replenish their pockets by giving them a part of their landlord's property. If such things are to be done, they should be done avowedly; but legislation to secure compensation for improvements should be based upon the principle that the landlord is receiving something which is real and not supposititious; positive, and not problematical; what is assuredly there, what is certainly useful and profitable, and, above all, what the landlord has not already paid for in some form or other before. Is it possible in any general Act of Parliament, which shall apply to all cases and circumstances, to lay down rules which will give this security? To me it seems that, having regard

to the very different conditions under which tenants hold, as regards the rent they pay, the terms upon which they entered, and other circumstances, any such Act, which shall be fair to all parties, is impossible." Those were the opinions, not of a landlord or a land-agent, but of a practical farmer—one of the Assistant Commissioners appointed under the Royal Agricultural Commission.

He was not there to proclaim the impossibility of any such Bill, but to assist in eliciting, by means of this discussion, what was possible as distinguished from what was impossible in this direction. He confessed that his own predilections were in favour of the lines of the Agricultural Holdings Act, if properly modified and guarded. As regarded the first class of improvements enumerated in that Act, if the sanction of the landlord were to be retained, they might be dismissed, practically, from consideration. As regarded the second class of improvements, which more immediately affected the interests of, as they were sometimes performed by, the tenant, the term of compensation should not, he thought, be limited to seven years. His own inclination would prompt him to adopt the principle of paying for those improvements, together with the third class of improvements, on the basis of their actual value, without limitation of time, to the incoming tenant, the original cost of the second class of improvements being considered; but he foresaw a very great difficulty in arriving at what they were worth to the incomer, and this being so, his view as to the second class of improvements under the Agricultural Holdings Act would be to extend, very considerably, the time for which the compensation for these improvements is to inure. As to the third class of improvements, no doubt most of those whom he addressed had read the Report of the Royal Commission and Lord Vernon's Supplemental Reports, which struck him as

containing extremely valuable suggestions, though scarcely workable in practice. It was quite clear that, in any application of legislation to the question of manurial value and feeding values, under the third class, there must be more distinct knowledge of what the incoming tenant was paying for than had been obtainable in the past. There must be power on the part of the incoming tenant, or the landlord, to take samples of, and be thoroughly assured of, the quality of the articles for which he was paying. As regarded payments of the kind, he confessed to considerable doubts (though his views might be dissented from by some of his friends from Lincolnshire), looking to recent experiences, and last year's 40 inches of rainfall, whether one-third of the feeding value of cake when about £10 a ton, was not an extravagant basis on which to estimate manurial value of feeding stuffs to the incoming tenant.

For his own part, he was inclined to adhere to the lines of the Agricultural Holdings Act, on failure of landlord and tenant to settle their own terms. This Act had to a certain extent been tested, had been shaped by experience, and was the outcome of more kindly thought and disposition to do what was right than any piece of legislation in past years. Of course, there were many details in it which must be modified before being made compulsory; but he thought that, with some modifications, it offered, on the whole, the best and safest solution of the question at issue. He attached great importance to the introduction of some provision for the appointment of an umpire, at the instance of either party, by the Land Commissioners or by The Surveyors' Institution, to settle the question of value of artificial manure and manurial value of feeding stuffs, apart from mere questions of tillage, hay and straw, and other details, to which he need not refer.

He might be permitted, in conclusion, to refer to the difficulty his firm had experienced in getting the incoming tenant to recognise and pay the compensation awarded to his predecessor in respect of feeding stuffs. After settling with the outcoming tenant, there invariably remained a residuum of value, which had to be borne by the landlord, and, consequently, a continual piling up of capital, which, he feared, was not always recognized in the market value of the commodity supposed to be improved.

Mr. Wm. Sturge (Past President) had much pleasure in seconding the vote of thanks to The President for his very concise and interesting Paper on the vexed question of the day.

In the remarks which he was about to make he wished to draw a clear distinction between the abstract question of payment for tenant-right and the question of interference with freedom of contract. He entirely agreed with the remarks of Mr. Squarey, that reasonable payment for tenants' right, with a due regard, also, to landlords' right, was a means of promoting the progress of English agriculture; but, while conceding so much, he must express his disapproval of any interference with freedom of contract. He could hardly believe that in this latter part of the nineteenth century they were met together to consider that which ten years ago was not on the *tapis* for discussion; but a long and unparalleled succession of bad seasons had brought agriculture to so low an ebb that the sick man was looking about in all quarters for assistance. He applied to Dr. A, and was advised by Quack B, and between one and another he did not know what to do or where to turn, but caught despairingly at every straw within his reach. Passing over recent legislation for Ireland—which dealt with freedom of contract and was admitted by its authors to be exceptional for the purpose of satisfying a disaffected

people—to find any previous cases of similar interference it was necessary to go back to the middle ages, and it might interest the Meeting if he referred to a few cases of the kind. In the year 1353—more than five hundred years ago—an Act was passed to regulate the rent of houses in towns where wool-stapling was carried on. In those days there was a large trade in wool, and, as great numbers of people flocked to those towns, the rents of houses were unduly run up, and so an Act of Parliament was passed to fix the rents at a permanent level.

The next Statute to which he would refer was the Statute of Labourers, passed in the year 1350, for the purpose of fixing the rate of wages; and that Act appeared to have been renewed in 1360, after the great plague, which so thinned the population that the farmers could not get labourers except at very high prices, and so they induced the legislature to fix the rate of wages for them. It would appear that this Act, although not always carried out, was at all events not repealed for something like three centuries. The last record he had found of it was in the year 1684, when the magistrates of the Warwickshire Quarter Sessions fixed the rate of labour at from 4*s.* to 5*s.* per week. He had been unable to trace the Act to a subsequent period, and imagined that it fell into desuetude about that time.

In the reign of Henry VIII. there was a Statute passed to regulate the price of meat—so much per pound for beef, mutton, and pork. It was found, however, that it would not work, and it was modified three years later, and at the end of seven years repealed, as the price of meat, like the price of everything else, found its own level, despite the efforts of the legislature to fix it artificially.

Again, in the reign of Edward VI. an Act was passed against forestalling, regrating, and engrossing. Forestalling was practised when a merchant or dealer, instead of going to

market, went direct to the farmer and bought his goods for the purpose of selling again. Regrating consisted in buying goods in the market for the purpose of selling again, and the Act provided that no man should buy any produce in the market and sell it within a certain distance within three months. Engrossing was the practice of attending the market and buying up to a large extent the provisions—meat or corn, or other things brought there—and storing them up with a view to speculation. This Statute apparently remained in force until some time in the reign of CHARLES II., when it was found necessary to mitigate it, and to provide by several subsequent Acts for its suspension as regarded wheat, unless the price exceeded at one time 20*s.*, then 30*s.*, and then 40*s.* per quarter. The object of those Acts was to prevent the corn-dealer from coming in between the farmer and the consumer. In the first place, it was thought to save the dealer's profit, and in the next place that the storing and warehousing of produce had a tendency to cause famine in the country. In the 15th of CHARLES II., chap. 7, a further relaxation took place, and engrossing was permitted when wheat did not exceed 48*s.* a quarter. Although it was found that these Acts of Parliament would not work, it was an extraordinary thing that at the time when ADAM SMITH wrote his "Wealth of Nations," about a century ago, they were still in force, and, though obsolete, were not repealed until the seventh year of the present reign.

What was the lesson to be learnt from all this? That all interference with freedom of contract had failed to attain its object. It was impossible to prevent articles of commerce from finding their level, and for the last two centuries the legislature had been engaged in repealing, one after another, Acts of Parliament passed for the purpose of interference.

He regarded freedom of contract as the mainstay and

foundation of our pre-eminence in commerce, and he was very jealous of any interference with it. What would a merchant or a dealer say if he were told that he was to have his price fixed by Act of Parliament, and must not sell in the dearest market and buy in the cheapest? It would be impossible, under such circumstances, for the commerce of this country to be carried on. Was there anything in land to make it an exception? It was said that the landlord and tenant did not meet on equal terms, and, therefore, that the weaker party must be protected. Did not the parties to all bargains often meet on more or less unequal terms? When things were dear the seller met the buyer on unequal terms and obtained an enhanced price, and when things were cheap the buyer met the seller on unequal terms and purchased his goods at a lower price. So it was with landlord and tenant. A few years ago there was a great competition for land, and agriculture was in a flourishing condition, and, no doubt, at that time the landlord and tenant did not meet on equal terms, *i.e.*, the landlord had the upper hand. But was it not notorious that during the last few years things had been altogether reversed, and that landlord and tenant did not meet on the same terms as during the previous period? The tenant now had the best of the bargain, and he knew very well how to make use of his opportunity.

As far as he could see, there was no reason why land should be an exception to the general rule. But it might be said that it should be an exception, because it was in the interest of the State that land should be made to produce as much as possible. He agreed with this, but if anything were calculated more than another to prevent the improvement of land, it was interference with freedom of contract. Buyers were wanted of landed investments. There were plenty of sellers. Many worn-out landlords were reduced almost

to death's door by the present state of things. They could not get their rents and pay their mortgages. What was wanted was to transfer land into the hands of wealthy men, who would invest money in its improvement; but he would repeat that if any one thing was more calculated than another to discourage investments in land, it was the knowledge that investors could not do as they liked with it, but would be tied down and fettered by Acts of Parliament.

It might be argued that this was all very well for the landlord, but that the tenant was in a different position. But if there was to be interference with freedom of contract for the landlord, there must also be interference with freedom of contract for the tenant. If the landlord was to deal with land on certain terms, the tenant must be bound to deal with it on certain terms also. He was certain that if the tenants of England were tested in that way they would express their disapproval, and would claim perfect freedom of action. Therefore he came to the conclusion that land was no exception to the general rule, and he was convinced that any interference with freedom of contract would be a retrograde step. It would be the thin edge of the wedge, and if interference of this kind once began, there was no knowing where it would end. He hoped that the expression of the opinions of Members of the Institution might have some effect in moulding any measure that the legislature might adopt, and keep it within due and reasonable bounds.

Mr. T. Huskinson (Past President) observed that the subject of The President's Paper was interesting at all times, but it had a special interest at the present moment, relating as it did to a question which would in all probability, before long, engage the attention of the legislature. He entirely

concurred in the observations made by Mr. SQUAREY and Mr. STURGE, as to the value of the principle of freedom of contract, and could not condemn too strongly the retrogressive tendency of any legislation that would restrict or destroy it. A great authority in the reign of Queen ELIZABETH described the functions of government as threefold—the protection of a man's person, of his property, and of his good name; and, having fulfilled these functions it should leave every man free to pursue his own interests in any way he thought desirable, provided he did not interfere with his neighbour. He (Mr. HUSKINSON) held that to be a sound principle at the present moment, and agreed with Mr. STURGE that a discussion with regard to it would have been a thing unthought of ten years ago. The principle which then found acceptance was to let things alone, allowing every man the fullest liberty to judge of what was the best for his own interest; and he held that any infraction of it should be resisted to the utmost.

This principle of freedom of contract was as applicable to tenant-right as to other contracts. He believed it to be impossible, even if it were advisable or politic, to define tenant-right in an Act of Parliament, or the system by which it should be regulated. Tenant-right, it was well known, varied in almost every locality, on almost every estate, and very frequently in different farms on the same estate; and therefore to endeavour to frame an Act of Parliament to describe the exact allowances that should be made to a tenant in all cases was extremely impolitic, even if it were possible, and must operate unjustly in many cases.

The point to be observed in all discussions on this question was that the true measure of tenant-right was an allowance for that *additional* fertility which a good tenant gave to land over and above its *natural* fertility. Any additional fertility which such a tenant could give was a very

valuable element, provided it could be secured and estimated. In the case of a good farmer, this quality was considerable; in a moderate farmer, very slight; and in the case of a bad one amounted to nothing. It was important, therefore, not to make allowances by way of tenant-right in respect of things which would confer little or no benefit on a succeeding tenant, and would merely have the effect of absorbing a portion of his capital which would be much better applied to the legitimate purposes of his business.

He could not see why contracts with respect to land should be specially singled out for interference as distinct from other contracts. The utmost freedom was accorded and looked upon as essential to trade and commerce; indeed, the wealth of England has been in a great degree created by this policy of allowing unfettered action on the part of individuals. This principle of freedom is equally good in the case of agriculture, and had undoubtedly led to equally satisfactory results.

Notwithstanding the present depression there was no reason to be ashamed of English agriculture, which had been, and still was, in advance of the agriculture of all other countries. Under the system of free contract great improvements in agriculture had been effected, and for many years past legislative efforts had been wisely directed towards facilitating the improvement of those estates the owners of which, from one cause or another, did not possess sufficient power over their property to enable them fully to improve and develop it. The whole of this legislation had gone on the principle that it was not the duty or the interest of the tenant to make permanent improvements, but to enable all owners to effect whatever improvements were necessary.

Much has been done under these various enabling Acts, but the passing of Lord Cairns's Settled Land Act had

now given the owner of a settled estate as full power for dealing with his property as if he were the owner in fee.

He had not, in his experience, met with tenants with such a superfluity of capital that they were desirous of effecting permanent improvements in their holdings. He had had no tenants come to him and ask permission to erect or enlarge their buildings, and to enter into a contract for the purpose of making permanent such improvement as the Agricultural Holdings Act contemplated. He maintained that a farmer had no right to be looked to for making permanent improvements. His business was to cultivate the land, and the landlord's to equip it with all that was necessary for good cultivation. By that means a tenant reserved his capital for the legitimate purposes of his occupation, and his capital, so employed, should yield him higher interest than the landlord expected, or was content with, from the capital he sank in improvements.

As regarded the agricultural distress which had so long prevailed, not only in England, but, he believed, in almost every part of Europe, recent observation entirely confirmed what he had stated in that room on previous occasions, that England had really suffered less than other countries, owing mainly to the circumstance that so many large properties were in the hands of wealthy owners, who had given their tenants both sympathy and substantial aid, and had borne their share of this dreadful visitation. Great as the distress had been, it had fallen with the greatest severity on the small yeoman cultivating his own land, who had no landlord to make him concessions; but probably a mortgagee behind him, eager for his own interests.

Allusion had been made to the operation of the law of distress. It was in times like the present that the strength, merits, or weakness of any system showed themselves, and his

observation convinced him that without the law of distress the landlords would have been unable to allow rent to go unpaid for considerable periods, or to extend to tenants that assistance which, without such a security, they would not have been justified in extending them. He never yet heard a farmer (and farmers as a class had a clear idea of their own interests) complain of its operation, or desire to have it altered.

Another great advantage to the agriculture of this country from the aggregation of land in large masses was that landlords were able to make large outlays in improvement. Speaking from his own experience during the last 40 years on the estates under his charge, which were residential properties, the landlord had, in one way or another, expended 15 to 20 per cent. of his rental in making permanent improvements. That was a very large deduction from his income, and in many cases the expenditure might be put even higher. The sentiment of ownership, this delight in the improvement of property which had descended to the landlord through many generations, had caused the expenditure of millions, and placed English agriculture in its pre-eminent position.

Before he sat down he would like to say, with reference to the subject of tenant-right, that he earnestly hoped, whatever the coming Bill might do with regard to it, it would contain some very stringent clauses with reference to the procedure for settling and estimating the compensation to which the tenant was to be entitled. He had generally found this the most unsatisfactory business that he had to do with. It was often difficult to get a settlement under half a year after the tenancy had expired, and the Lady-day valuations were seldom completed before Michaelmas, and the agents employed upon them were not always satisfactory. He hoped for a complete change in this

respect. He trusted the change would take the form of allowing either party—whether landlord or tenant—to call on a perfectly independent authority—whether the Land Commissioners or some other body—to appoint an umpire unconnected with the neighbourhood to settle matters of this kind, which were most harassing at present, and attended in many cases with very unsatisfactory results.

He had only to repeat that he trusted the legislature would not sanction any departure from the principle which had, up to the present time, produced such excellent results —the principle of allowing landlord and tenant to make the arrangements which they considered to be most conducive to their own interests.

Sir J. Heron Maxwell, Bart. (Visitor), said there was one subject he wished to touch upon as confirming what the last speaker had said with regard to the incalculable advantage of the law of distress, or, as it was called in Scotland, the law of hypothec. He had been in possession of an estate for over 40 years, and could give one or two instances of the advantage that had proceeded from the existence of this law, the abolishment of which in Scotland, a few years ago, he considered to be a very great mistake indeed. Before his father died, in 1830, he had let to a farmer a certain property, the lease of which was not signed when his father died. He (the speaker) did not succeed to the estate for fifteen years afterwards, and before that man had been four or five years on the estate he got into great difficulties, and would most undoubtedly have lost his farm altogether if it had not been for the advantage the landlord possessed in the power of hypothecating him. He was under the hypothec for some years, but he managed well, and ultimately got clear of his difficulties. This tenant died a few years ago and his nephew still holds the farm—

all on fifteen years' lease. In another instance where a man fell into similar difficulties, he begged and prayed to be hypothecated, urging that it would be to the advantage of his landlord and his other creditors; and he (Sir H. MAXWELL) had the satisfaction of receiving a letter of thanks from the other creditors, as well as from the tenant himself, for having hypothecated him and allowed him thus to settle all his debts. He mentioned this as the law of distress still existed in England, and if this law were abolished in England, as it has been in Scotland, advantages similar to those he had referred to would be at once sacrificed, and English landlords and tenants should strongly oppose any such proposal.

Mr. J. E. KNOLLYS (Fellow) feared that many of his friends present, whom he was accustomed to look up to as guides in these questions, did not entirely coincide with the views he held on the matters under discussion. Most of those he was addressing had probably lived long enough in the world to know that, although there were certain things in themselves, and in the abstract, extremely desirable, events might come with such force that it became impossible to carry out their views in the way they might wish, and he submitted that this was somewhat the state of things at the present time. However desirable freedom of contract might be in the abstract, yet he thought, speaking as a man of business and a man of the world, that it was impossible for Parliament at the present time to resist the pressure which was brought to bear upon it from all sides, and avoid infringing, in some degree, on freedom of contract; the point was, therefore, could the Members of the Institution help to guide the legislature in dealing with this subject? He could not help thinking that a body like The Surveyors' Institution would fail in their duty if

they neglected to offer an expression of opinion likely to be of real and practical use to the Government in the task which he presumed they were about to undertake, of dealing with the question of Compensation to Agricultural Tenants.

It appeared to him that it was quite possible to arrive at a conclusion which should meet to some extent the desire of those who were preparing for legislative security for the expenditure of tenants in improvement of their holdings, without infringing deeply and injuriously on the principle of freedom of contract. He thought this might be done by fixing a very distinct and definite line of demarcation with respect to the description of improvement which should come within the scope of compulsory compensation. He would draw a broad and distinct line between expenditure in the ordinary course of good farming affecting the *condition* of the land, and expenditure in works of permanent improvement affecting the land itself. The latter were works decidedly belonging to the landlord, and, as Mr. Huskinson had pointed out, the landlord was now better able than he had ever been to perform them, owing to the Settled Lands Act. Any legislation that induced a tenant-farmer to lay out his money on permanent improvements would be, in his opinion, very prejudicial. But on the other hand it was to the interest of the country at large that the cultivation of the soil should be maintained at a high level, and to the interest of the landlord and incoming tenant that the incoming tenant should have the farm handed over to him in good condition, and though he might have to put down a sum of money to secure this result, he believed it would be much cheaper to pay that money than to be working at a loss for three or four years, in order to get his land into the condition in which it should have been left by his predecessor.

If the land was left in good heart and condition, arising from purchases which, in the course of good farming, the outgoing tenant had made, and in respect of which he had, owing to the expiration of the tenancy, been unable to obtain the full benefit, then it surely was reasonable that he should be paid for such portion of the benefit arising from those purchases that was handed on to the succeeding occupier.

To this extent, laying this down as a principle, but avoiding the details of its application, he thought that tenants might advantageously be secured compensation by the legislature, and that to that extent the principle of freedom of contract might without injury be interfered with.

Mr. W. J. Beadel (Vice-President) was of opinion that any interference with freedom of contract was most undesirable in the interest of the land. He had his own views as to the causes which had done much to bring about the state of things out of which this discussion had arisen; but, putting causes aside, he would turn to the subject under consideration—the contemplated legislation for the purpose of remedying the evils under which agriculture was suffering at the present moment. It seemed to him that if tenant-right was to be established, it must be (if it were to be permanent) on the basis that it was to be nobody else's wrong.

The highest authorities held that, as a rule, artificial manure should not be put upon the land unless an immediate return could be got from the crop then growing. If this be so, surely neither the incoming tenant nor the landlord should be asked to pay anything in respect of expenditure of such a character. But he would instance the county of Lincoln, where the best system of tenant-right existed,

yet as great distress had prevailed there as in any other county in England. It might therefore be asked, having regard to these facts, whether interference with free contract, by the establishment of an arbitrary system of tenant-right, was likely to prove a panacea for the depression which existed.

It was clear, therefore, that the causes of the present distress lay deeper, and that legislation for the establishment of compulsory tenant-right would have no other effect than assisting to put money into the pockets of those whose object would be, not to leave the land in the highest possible state of cultivation for the benefit of the landlord or the incoming tenant but, to obtain as much as they could by way of compensation for so-called improvements in the soil.

Mr. C. G. Grey (Fellow) was opposed, like everyone else, in the abstract, to any interference with freedom of contract, but at the same time he must admit there was something in what had been said so often—that a contract between a landlord and tenant on taking a farm, was not a contract between parties on an exact equality. Take the case of a tenant who (and perhaps his fathers before him) had lived on the farm for many years, and was averse to going elsewhere; such a tenant, if unfortunate enough to have to deal with a landlord or agent desirous of getting all they could out of him, was sometimes led to give more than he really thought the farm was worth rather than leave it; the case was not very exceptional (he had known many such), and he thought it hard that a man who had farmed his land well, and lived on it all his life, should be given the choice of paying an unfair rent—a rent, perhaps, based to some extent on his own improvements—or of going elsewhere and seeking another farm. On the other hand he

quite saw, and had often seen, so-called tenants' improvements such as they had no right to call upon anybody else to pay for.

One or two of the speakers had said that a tenant should enter on a farm cultivated and equipped, and in good condition, and leave it so; but how could a tenant ensure the farm being in good condition when he entered it? More often than not a farm was left in bad condition, and in that condition was let again; or if a farm was let in a good condition and was run out and left in bad condition, what remedy was there? There was no hold on the tenant, and though the law might be on one's side, it was practically impossible to carry it out. He was giving a few instances for the sake of showing how the question cut both ways. The great difficulty in connection with legislation for securing to the farmer his tenant-right was how to put it into practical operation. How could any Act of the kind be so framed as to apply to all parts of England and Scotland, seeing how greatly the customs varied in different districts? He had examined many of the returns compiled with the view of getting at the facts as regarded customs in different parts of the kingdom, and could only say that they were very misleading, and showed how easy it would be to lead the framers of any Act astray.

Mr. D. Watney (Fellow) feared it must be on account of the success which had attended agitation in Ireland that a similar movement was now on foot in England; but it was singularly inopportune to talk of tampering with freedom of contract with the object of fixing fair rents and of compensating tenants for improvements, at a time when the country was in the depths of agricultural depression. He might assert with confidence, in the presence of the land-agents in that room, that never within living experience had so little been

done, by way of improvements in farms, as during the last ten years, and that never had the tenants in this country more freedom in entering into contracts with the landlords; and he might safely add that no body of men were more keenly aware of this fact than the tenants themselves. The question before them resolved itself into this: how was the agriculture of this country to be carried on in the future? It was undeniable that its great drawback at the present time was want of capital. The capital which a tenant required varied from £6 to £15 an acre. In Lincolnshire, with its system of tenant-right, he would probably need as much as £12 an acre. In the county of Surrey, the custom of which had been referred to, the tenant also needed a large capital; and it was because of the injurious effects of tenant-right in Surrey, Sussex, and Kent on the incoming tenants, that the land-agents in those counties had been endeavouring, for many years past, to relieve the land as far as possible from the burdens upon it in the shape of tenants' compensation by buying them up on behalf of the landlords. If those burdens were to be re-imposed, the effect would be to undo what so many had been trying to do for years past, and it would be unfortunate, especially under present circumstances, if the incoming tenant were to be called upon to provide a larger capital to farm the land.

Improvements effected by tenants, whether under a lease or a yearly tenancy, were, for the most part, of the most unenduring kind imaginable, being done in such a manner as just to last the tenant's time, and, as a rule, without considering whether they would be a benefit or not to the incoming tenant. He believed that any alteration in the law affecting freedom of contract between landlord and tenant would be attended with very grave consequences.

Mr. S. B. L. Druce (Visitor) had devoted considerable

attention to this question, both in his capacity as one of the assistant Commissioners under the Royal Agricultural Commission, and as Secretary to the Farmers' Club, where this question had been under discussion off and on ever since its establishment some 40 years ago. He was bound to say that the views propounded at the Farmers' Club were widely different from those to which he had been listening that evening. He was himself a farmer's son, and although not actually a farmer at the present moment, yet he had the misfortune, as a trustee, to have a large farm on his hands, and he spoke with the feelings of a farmer in avowing his belief that the tenant did not, as a matter of fact, contract on taking a farm, on strictly equal terms, with the landlord or his agent. It required some courage to say this in that room, but he put it to those present, as the representatives of the great landowners of this country, whether it was not probable, that when a farmer went into an agent's office, with all its imposing paraphernalia of desks and papers, he might be a little disconcerted and put off his guard by the surroundings.

It had been asked, "Why make any exception of land as regards perfect freedom of contract?" One reason, and a cogent one, was that the land in this country was limited in quantity and not capable of extension like other commodities.

He was, however, one of those who thought that freedom of contract should be preserved, and he had given expression to his views in this respect in a Paper recently published in the Journal of the Farmers' Club, but he held that freedom of contract might still be maintained while giving the tenant absolute security for improvements of which he had not reaped the full benefit during his tenancy. If the tenant could prove what Mr. Huskinson so felicitously called "additional fertility," at the end of his term, he was

entitled to be paid for it. But how was he to prove it? It must be proved by an appeal to arbitration, before properly-qualified valuers, and he had gone so far as to say, in his Report to the Commissioners, that no man should value between an outgoing tenant and his landlord except he were a Member of that Institution, which he understood to mean having passed a proper examination. Certainly there was no body so fitted to take the lead in the matter as The Surveyors' Institution, incorporated as it was by Royal Charter.

He would, further, advocate the appointment of an umpire by some body like the Land Commissioners.

One reason why the Agricultural Holdings Act was not in more general operation was its want of elasticity and its consequent unsuitability to many parts of the country. The simpler and more elastic the proposed Act, the better it would be.

Mr. C. T. D. Acland, M.P. (Visitor), had been struck by an observation which fell from Mr. Huskinson with reference to the subject of distress. When, about a year ago, he was canvassing East Cornwall, the subject of distress was thrust at him at almost every meeting, and the feeling that appeared to be uppermost was not so much one of complaint that the law of distress did injury to the agricultural interest, as a sense of injustice among other classes of the community because they had not the same advantage as was given by the law to the landlord, and, no doubt, those who had expressed the opinion, that evening, that the law of distress was not injurious to the farmer, were right in their conviction. He was glad to have had the opportunity of hearing the opinions of gentlemen who had the advantage of coming in contact with both landlords and tenants on estates of every variety throughout the country.

He did not gather that it was the opinion of the Institution that there was no need for legislation, or that there was no justice in the cry that had been raised against a man being rented on his own improvements. He was glad to hear what Mr. DRUCE and Mr. KNOLLYS had said with reference to the great importance of having responsible and properly-qualified men for the duty of making farm valuations, as it was a point to which he attached special importance.

He trusted that any Bill which the Government might bring in would go upon the lines of leaving the tenant as free as possible to conduct his business in his own way up to the very last day of his tenancy, only providing a minimum of compulsion in case the agreement, which it was desired should be entered into between the landlord and the tenant, should prove unsatisfactory to either party. The Members were ready, he believed, to recognize the necessity of leaving the landlord and tenant free to contract for permanent improvements if they chose to do so; and they would, he thought, be doing a great service if they would make it clear (1) on what principle of classification the distinction would best be made between permanent, first-class, or landlords' improvements and operations in the ordinary course of agriculture, now commonly called second or third class, or tenants' improvements; (2) how a definition could be arrived at of a satisfactory agreement, *i.e.*, one which would secure to the tenant adequate compensation for his agricultural operations; (3) in what way a custom of the country could best be made use of.

He believed it was the case that the farmers were well satisfied with the various customs that prevailed in many counties, and a suggestion was made, at the Committee which sat last year, that when any custom was introduced into an agreement it should be set out. The effect would

be that no custom would be so scheduled as to become stereotyped.

THE PRESIDENT would not at that hour attempt to sum up the discussion fully. He might do it, however, in a general way, in very few words. Almost all the speakers agreed that it was undesirable to interfere in any way with freedom of contract. It appeared also to be the general opinion that the lines of the Agricultural Holdings Act, so long as it remained permissive, as at present, were satisfactory. Opinions had been often expressed in that room with reference to the customs of the country, especially as to the custom of the county of Surrey, which almost everybody had condemned; but it seemed to him that what had been asked for lately went a little beyond the custom of Surrey.

It also seemed to be agreed that the farmer, if he was to be compensated, should be compensated only in respect of improvements made by him in the legitimate conduct of his ordinary business, and that the owner was not to have his estate altered (he used the word advisedly) because his tenant thought that alteration would be an improvement to it; and that an owner ought not to be called upon to pay for any such alteration.

It was not for him to say that the agricultural valuers of England were incompetent, but some of them no doubt were capable of improvement. It was thought, and he agreed with it, that some better method of getting an umpire appointed was desirable. There should be some constituted authority for the purpose, such as the Land Commissioners, or, as had been suggested, the Institution of which he had the honour to be the President. It often happened that there was no choice but to have as umpire a person of the same class as the valuers, and he was himself concerned

at the present moment in an arbitration which was unsettled because the parties, being unable to agree upon an umpire, had no power to appoint one.

The Paper he had read had, he thought, answered its purpose, by eliciting what might be taken to be the general opinion of the Institution.

The vote of thanks having been put and carried unanimously, the Meeting then adjourned.

PAPER 112
No. 195

LAND TAX:

ITS ASSESSMENT AND REDEMPTION.

BY W. E. EVANS (FELLOW).

Read at the Ordinary General Meeting of THE SURVEYORS' INSTITUTION
April 2nd, 1883.

THE PRESIDENT (MR. E. RYDE) IN THE CHAIR.

IT is unnecessary, in a practical Paper treating principally of the Assessment and Redemption of the Land Tax, to dwell at any length upon the origin of the tax. I will only therefore, mention, that I gather from the authorities on the subject that the land tax had its origin in the feudal system, and appears to have been first raised in the reign of Henry II. It was subsequently levied, by an assessment from time to time of four shillings in the pound for lands, and two shillings and eightpence for personal property; and also by grants of subsidies, and fifteenths, based upon a valuation made in the reign of Edward III., until the Civil Wars, when monthly assessments were levied. This system was continued under the Commonwealth, a twelve months' rate being then fixed at £1,200,000. These latter assessments were made by a uniform rate on the income arising from both real and personal property. From this time periodical assessments were made upon the same principle, until by the Act of the 9th and 10th year of William III., c. 10, the sum to be raised was fixed at nearly a million and a half, in certain specified quotas on each county, city, and hundred. At a later period the tax was

annually voted, the amount to be raised being named in the Act, and also the pound rate at which it should be assessed, which varied from four shillings to one shilling, until the year 1798, when the sum of £1,989,673 7*s.* 10½*d.* was the sum to be raised for England and Wales, and £47,954 1*s.* 2*d.* for Scotland. In this year the scheme for the redemption of the tax was introduced, 38 Geo. III., c. 60; and the tax, to enable the plan to be carried out, made perpetual, subject to redemption; the quotas fixed by the Act of that year, 38 Geo. III., c. 5, became a fixed charge, and have been levied, less the redemptions, ever since.

The principle of the assessment of rating both real and personal property had been departed from before this time. Personal estates had for some time previous not been regularly assessed; and in 1798 only £150,000 was raised from this source; subsequently, in the year 1833, personalty was entirely relieved from any liability.

Property Chargeable with Land Tax, and Mode of Assessment.

The tax should be levied on all quit rents arising from manors, on all messuages, lands, and tenements, also on all quarries, mines of coal, tin, lead, copper, mundick, iron, and other mines, iron mills, furnaces, and other iron works, salt springs and salt works, alum mines and works, also on all parks, warrens, woods, underwoods, fishings, tithes, tolls, fee farm rents, and all other yearly profits issuing out of any lands, and all hereditaments of every kind situate within the parish.

There are a few exemptions, the principal being the colleges and halls of Oxford and Cambridge, some of the public schools, all hospitals, and certain charities; also exemptions arising out of redemptions, such as allotments

under Inclosure Acts, in respect of lands on which the tax has been redeemed, and in respect of right of common. Also tithes and hereditaments sold by the trustees of any charity, for the purpose of redeeming the land tax. Also tithes and lands belonging to any livings having an annual income of less than £150.

Previously to 1876, persons holding any public office or employment of profit, or receiving any annuities, pensions, or stipends, were supposed to be assessed, with any sum not exceeding the sum at which such offices or other employment were assessed, in the year 1798; but by the Customs and Inland Revenue Acts of 1876 and 1877 (39 and 40 Vict., c. 16, and 40 and 41 Vict., c. 10), the duties on such of these as were assessed by the Land Tax Commissioners ceased; and salaries, pensions, and other allowances charged on public revenue, the duties on which, before 1876, were deducted before the payment of such salaries or allowances, are now the only ones charged with land tax.

The properties first mentioned should be charged by a yearly assessment, made by an *equal pound rate*, on all such as are of the annual value of twenty shillings and upwards. All property must be rated in the parish in which it is situated, with the exception of lands which were formerly open field lands, which may be assessed, in such parishes as they have been assessed since their inclosure, although they may not lie in the parishes where they are rated.

In places where the tax is properly assessed, the poor rate is usually taken as the basis. The proportions payable by each county and town are fixed by the Act; and these quotas are subdivided into quotas for divisions, and these again for parishes. The quota for each parish cannot be varied; consequently, the incidence of the tax, which originally was theoretically, if not practically, equal, has,

owing to the much greater development of property in some places than in others, become very unequal; the rate necessary to raise the quota varying in parishes in large towns from one farthing to two shillings in the pound, and in agricultural districts from about 2½*d.* to 1*s.*

In Scotland the rate is so small that, in some cases, none is made; but the amount is paid out of the public money.

The tax should be assessed under the direction of local commissioners, specially appointed. These commissioners must be qualified, if for counties, by the possession of a freehold, copyhold, or leasehold estate of the clear yearly value of £100, or by the reversion of a like estate of the yearly value of £300, a moiety of which is situate in the county for which they are appointed. For cities and towns the qualification is a similar estate of the value of £40, or personalty to the amount of £1,000; but the person to be elected must be an inhabitant. By virtue of the 7 and 8 Geo. IV., c. 75, all justices of the peace, possessing the necessary qualifications, are empowered to act as commissioners, except any who are or have been inspectors or surveyors of assessed taxes. The commissioners must take the oaths, and are liable to a penalty of £50 for acting without being duly qualified. Two commissioners are a quorum.

The commissioners appoint persons in each parish to be assessors, and certify to them the gross quota of the land tax, the reduction caused by the application of surplus land tax, the net quota remaining, the proportion thereof exonerated by redemption, and the balance remaining to be raised by assessment.

The assessors are directed to prepare the assessment by first inserting therein a list of the properties exonerated, describing them, and placing opposite to the description the

amount redeemed, and, if any property has since the redemption been subdivided, showing such alterations. They are then to levy the amount remaining to be raised by assessment, on the properties I have mentioned, by an equal pound rate on the annual value. The whole of the property in the parish, whether exonerated or not, must be brought into the assessment, and fully described.

The collectors are not, if practicable, to exceed the quota; but if from the increase of the value of property the assessment cannot be apportioned at any equal pound rate without exceeding the quota, or if from any other unavoidable cause the assessment exceeds by £5, or upwards, the amount required, the excess is to be applied to the redemption of a part of the tax chargeable upon the parish, the net quota being reduced by the amount redeemed. The tax is payable on or before the 1st of January in each year, and is collected from the occupiers, who, in the absence of any agreement to the contrary, are entitled to deduct the amount out of their rents. It is not, however, necessary that the lease or agreement should state specifically that the tenant should pay the land tax: a clause binding him to pay all taxes will include the land tax. If the occupiers refuse or neglect to pay, the collectors can levy a distress on their goods either on the premises, or elsewhere within the jurisdictions of the commissioners; or, on any goods, whether their own or not, found on the premises. If the premises are unoccupied, and there is no sufficient distress, the amount unpaid may be reassessed on the parish, or may be paid out of the surplus land tax, if any. Where woodlands are assessed, and there is no distress, the collectors, on obtaining a warrant from the commissioners, may, at seasonable times, cut and sell a sufficient amount of wood (timber trees excepted) to pay the tax and expenses; and in the case of tithes, tolls, or other

annual profits not distrainable, they may seize and sell as much as is necessary.

Owners of land, in paying any fee farm rents, rent-charges, annuities, or chief rents, or payments of this nature, are entitled to deduct land tax; the amount to be deducted being calculated at the same pound rate as that charged on the property liable to the payment. I do not think that the tax *is* usually deducted, possibly because it is often not known that the deduction is legal, or because, in the present state of the land tax assessment in many places, it is more trouble to ascertain what the pound rate is, than the deduction in such small payments as fee farm or chief rents is worth.

In the case of fee farm rents or chief rents payable to the Crown, 4*s.* in the pound should be allowed; and these rents are, I believe, applied for, less land tax.

I have now stated briefly the mode in which the tax should be assessed and collected, and I append a copy of the Assessor's Appointment Warrant and Instructions, and also a copy of the Form of Assessment—those who have examined land tax assessments will know how very seldom they are prepared in accordance with the official instructions. In many parishes, the land tax assessments have been recopied from year to year for a very great number of years, the result being that land which has developed in value is assessed much under the proper sum; whilst agricultural land is often, on the other hand, considerably over-rated by reason of the proper proportion not being charged on the properties which have increased in value.

The recopying of old assessments has given rise to a popular error that the land tax is a fixed charge per acre, instead of an equal pound rate on the annual value. On a sale of land, the land tax is even sometimes apportioned per

acre, as if it were such a charge, and the apportionment adopted by the collectors. In other cases, portions of land have been sold as free of land tax, and the amount at the time assessed on the land put on one particular portion or on a part remaining unsold. Such an arrangement cannot be upheld. Again, small portions of land have been sold, or taken for railways or other purposes, and no tax at all assessed on them by the collectors, the same amount as before being obtained from the vendor in respect of the remainder of his estate. Also, it will be found that many properties, such as mines, quarries, tithes, and the like, are often not assessed at all. Railways in most instances redeemed the tax apportioned on them, foreseeing, doubtless, that if they did not do so, they would eventually be saddled with a far heavier amount; but in cases where no tax was assessed on them, when they purchased the land, they were unable of course to redeem; and I may mention a case where a railway running through four adjacent parishes redeemed the tax on two of these parishes, the amount assessed on them being a few shillings only, whilst in the other two parishes no amount was assessed at the time they purchased, and on an appeal by one of the landowners on the ground of his property being consequently over-rated, an amount of upwards of £20 was in each case assessed upon the Railway Company to the relief of the other landowners.

Appeal.

If any person thinks that he is over-assessed, he can appeal; and for this purpose the commissioners fix a day when they will sit to hear appeals, of which time the public should have twenty-one days' notice. The notice must be in writing, and affixed to the church door. The collectors must inform the appellant that he should acquaint the assessors of his intention to appeal, that they may attend to

uphold their assessments. The commissioners have full power in dealing with the cases, and the decision of the majority is final, there being no further appeal upon any pretence whatever, except upon a dispute as to the division or place where the property is legally liable to be assessed.

Commissioners who are interested in the parish in which the appellant's property is situated cannot act. This is occasionally somewhat awkward, as they are almost always local men. On one occasion, in a parish where we had a very strong case, we found that every commissioner present was interested; consequently, there was no one to hear the appeal. In this instance it was arranged that, if we were successful in our subsequent cases in the adjacent parishes, the assessment in this particular parish should be returned to the assessors for revision. The more correct procedure would probably be for the commissioners to adjourn the appeal, and arrange for the attendance of others who were not interested parties.

If it is found that the land tax assessment has been copied for some years, it may often be the case that in parishes in which a portion of the land is purely agricultural, but where the remainder has of late years developed in value for building, mining, or other purposes, the agricultural portion is considerably over-rated. In such cases the owners of the agricultural portion, if not also owners of the more valuable portion, will generally find it advisable to appeal. Again, if a railway runs through a parish, and the tax on the company's land is not redeemed or properly assessed, a considerable advantage will be gained by appealing. Even on property that has developed, the tax will, in the course of years, if the assessments are recopied, become unequally assessed; and those who find themselves paying

a higher pound rate than others may gain relief by appealing.

It sometimes entails more trouble to ascertain whether it will be well to appeal, than at first sight might be supposed. It is not sufficient to show that the property in the parish is unequally assessed: the appellant must show that in his case his property is over-assessed. It can of course easily be ascertained what is the total annual gross rental of the parish, the total amount of the quota to be raised, and the uniform rate in the pound necessary for the purpose, and then to calculate whether the property in question is paying more or less than that rate. But here often a difficulty occurs: the redemptions are not usually found on the assessments; and if after considerable difficulty they are obtained from the head office, it is sometimes found almost impossible to identify them. About three-quarters of the lands redeemed were redeemed in the first eight years from 1798 to 1806; and, if the assessments have been recopied, and the redemptions are not shown, and the land has changed hands two or three times, it is difficult, and in some cases impossible, not only to ascertain which land it is that is redeemed, but even to determine, from the descriptions given, the extent of the lands then on the assessment. To give a broad illustration: the annual value of a parish may be £10,000, the amount remaining to be raised by assessment £125, or 3*d.* in the pound; a property in the parish is found to be rated at 6*d.* in the pound; if there are no redemptions it is at once evident the property is over-rated. But suppose that half the tax has been redeemed, then 6*d.* in the pound might be a proper amount, or might not, according as the property redeemed was in a part of the parish in which the value remained nearly stationary, or in a part which had since developed into building land. If in

the agricultural portion, the rateable value of the remainder would probably be more than £5,000, and the rate of 6*d*. on any particular portion excessive; but if the redemptions cannot be identified, it may be difficult to say for certain whether an appeal would be wise. I am giving an extreme illustration; it is generally possible to identify some of the redemptions, and to make guesses at some, at all events, of the others.

When the redemptions cannot be identified, the course adopted by the assessors has, in some instances, been to bring the whole of the parish again into assessment, thus obliging the owners who have redeemed to prove their redemptions; if they are unable to do so, they become again liable for the tax.

In pursuing this course, it seems quite evident that the amount to be raised by assessment—that is, the amount remaining after deducting the sum redeemed—should be assessed on the whole parish, and if any redemptions are proved, the amount charged on this property should be reassessed on the remainder; but I have known cases where the gross quota was assessed, and on any redemption being proved the amount set opposite the property was struck out. This seems incorrect, both because the assessors have no power to collect more than the sum remaining for assessment, after deduction of the amount redeemed, and because the sum reassessed on the redeemed portion would not necessarily be the same as the amount redeemed.

Another difficulty, occasionally met with, where the quota has been subdivided into quotas on townships, is, that the boundaries of the township cannot be easily defined. The parish has been altered, the township in question has become partly or wholly merged in another parish, and maps showing the old boundaries cannot always readily be found; it then becomes difficult to ascertain

whether all the property chargeable is included in the assessment.

Owing to the land tax assessment having been so long neglected in many places, there is very often a want of practical knowledge of the correct mode of assessment shown by the commissioners themselves. As an illustration of this, I will give a short summary of the proceedings in a case with which I was connected some time since. An owner being anxious to redeem the tax on his estate, extending into five parishes, we proceeded to ascertain if the amount assessed was correct, and was assessed on the whole of his property. We found in some of the parishes that the rate varied from 2¾*d.* to 1*s.* 2*d.* in the pound, the average rate on the property in question being 3¾*d.*; the redemptions were not shown, and the assessments we found to have been recopied for 40 years, and probably for many years longer. We gave notice of appeal, and demanded to see the list of redemptions; these we could not obtain at all from the clerk to the commissioners in the district; but after a correspondence with the head office, they were at last furnished by them, a few days before the appeal came on. We showed that we were over-rated, that the assessments had been recopied for upwards of 40 years, and were very unequal; all this was clear, but the commissioners, against whose decision there is no appeal, said they were sorry, but they could not see their way to altering the assessment, as it would be so difficult to make it out correctly. Though we were aware that there was no appeal from their decision, we deferred the payment of the tax, and sent a statement of the case to the head office. After some correspondence they said we must pay on the then assessment, but that we could appeal again the following year. We took the precaution to have legal assistance, and were successful in upsetting all the assessments, and on

reassessment obtaining a reduction of about 15 per cent. on the former amount; this reduction being the result of some valuable properties, liable to assessment, not being previously rated, and a considerable portion of land in the neighbourhood of a town having developed in value.

As a collateral result of the same appeal, the land tax on a very poor agricultural estate under our management, comprising about 1,000 acres, and being a detached portion of a large parish, was, in the new assessments, reduced almost exactly 50 per cent.; the remainder, and the bulk of the parish having considerably increased in value from various causes.

On a reassessment following on a long-neglected state of things, there are always numerous appeals, and the prevalence of the error I have before mentioned of the land tax being a fixed charge per acre on certain lands only, is in the district I am acquainted with very apparent; persons appeal because their tithes are rated, or because theirs is house property, or mills, or mines, or because the tax is more than it was previously. Many, of course, appeal on the proper grounds of the estimated value of the property, contending that the poor rate being the basis, they are assessed on the gross estimated rental instead of, as they contend they should be, on the rateable value, or that the gross estimated rental is too high. In the first case, the appeals have been, as far as my experience goes, invariably dismissed. The assessment should be made, as before mentioned, with as much equality and indifference as possible, on the true yearly value; the deductions from the gross estimated rental vary from about 5 to 30 per cent. on different classes of property; and the percentage allowed on similar properties varies in different unions. The gross estimated rental is also the basis of the property tax. In the second case, the appeals were also dismissed in the cases I have met with,

the appellants being directed to appeal against their poor-rate assessment. The commissioners have full power to settle the value themselves; but as, if they departed from the poor-rate basis, a valuation of the whole parish would be necessary to place them in a position to assess all the the property on an equal basis, the course taken seems in every way the most convenient. Another ground of appeal is, that there is no profit actually derived from the property assessed, and that, therefore, it is not liable—as, for instance, sporting, which is not let, or even the right exercised. It appears that these appeals cannot be upheld—the words of the 4th section of the Act seem clearly to show that the intention is to rate all property whether actually producing income or not.

Before quitting the subject of appeals, I may add that there is one case in which appeal is especially authorized: it is where the land is charged with double land tax. This double tax appears to have been first assessed in the year 1692, on the estates of Roman Catholics who refused to take the oaths; it continued to be so assessed for many years. In the course of time some of these lands came into the hands of Protestants, and it was necessary to give them relief from the double tax, for which purpose an Act was passed. In the year 1791 it was decided to abolish the double tax altogether, and to effect this the clause charging it was omitted from the then annual Land Tax Acts, the amount of the double tax being directed to be reassessed on the whole parish by an equal pound rate. This gave relief in some cases; but where a Roman Catholic owned the greater part of a parish, the result was that the tax was practically reassessed upon him in another form.

An Act, however, passed in the year 1828, 1 & 2, Wm. IV., c. 21, gives any person still charged with the double tax the right to appeal to the commissioners; and

on proving his case to their satisfaction, and also proving that the land subject to the double tax has not been sold for a valuable consideration as subject to such tax, to have the excess discharged.

I have had no experience of such cases, but perhaps other Members may have something to say on the subject.

Redemption.

There now remains to be considered the redemption of the tax.

The scheme for this purpose was originally introduced with the idea of improving the credit of the Government, by causing the absorption of a large amount of the public debt, and consequently raising the price, and enabling the Government to borrow on better terms. The Act was at first very successful, upwards of £600,000 of tax being redeemed in the first eight years, at about 21 years' purchase, the average price of stock being 56.

The price of redemption was originally the purchase of so much stock in the Three per Cents. as would yield a dividend of one-tenth more than the amount of tax to be redeemed: this price has since been reduced, and the terms now are that the money to be paid, or stock to be transferred, must be sufficient to yield an interest or dividend less by 17½ per cent. than was required by the Act 42 Geo. III., c. 116. For instance, supposing the land tax to be redeemed is £10, and the price of stock par, the money payment would be £366 13*s.* 4*d.*, less 17½ per cent., or £302 10*s.*, being 30¼ years' purchase. The exact sum actually to be paid depends on the price of stock in the second week after the date of the contract.

The consideration for redemption can be satisfied in several ways. Firstly, by transfer of *stock* to answer the whole consideration at one time, or by instalments within

two years; by payment in money in one sum, or by four equal instalments within two years; by transfer of stock by instalments exceeding two years, but not exceeding 16, no instalment to be of a less amount than £100 stock; or by payment in money in similar instalments, no instalment being less than £60.

The money is paid to the receiving officer of the district, and the land tax is exonerated from the quarter day preceding the day of payment.

The land tax can be redeemed by those in possession or by those in remainder, reversion, or expectancy, in fact, by any persons having an interest in the premises. Where, however, it is redeemed by persons having an interest other than inheritance, the estate becomes chargeable, for the benefit of them and their assigns, with the amount of the consideration paid for such redemption, and with an annuity equal to the tax redeemed.

Corporations, trustees for charities, and the like, may sell a part of their lands to enable them to redeem the tax on the remainder; and capital money arising under the Settled Land Act, 1882, may be used by landowners to redeem the tax.

Where under any lease or agreement the tenant is bound to pay the land tax, and the tax is redeemed during his tenancy, the amount of the tax is considered, and is recoverable, as rent reserved.

For the purposes of redemption, the clerk to the commissioners in the place where the land tax is charged should be supplied with a full description of the lands charged, with the boundaries thereof, or numbers on the tithe map; maps may accompany the particulars, but if they do they must be in duplicate, one to accompany the contract and the other to be annexed to the registry; and they must also be made exhibits by the clerk to the commissioners in

the district. A form of declaration, which can be obtained from the clerk, must also be filled up and signed, stating the particular mode in which it is desired to make the payment.

The clerk will then furnish a certificate of the amount to be redeemed, and will transmit it, with the declaration and other particulars, to the commissioners authorized to enter into the contract; and they will, if the papers are sufficient, give notice of their having entered into the contract, and will furnish all necessary particulars as to the amount to be paid, and the mode and time of payment.

I have mentioned only the ways in which land tax can be now redeemed: at first there were several other modes of redemption, such as a sale of the tax to strangers, and a power of sale or assignment by persons redeeming. These powers cannot now be exercised; but some of the rent-charges caused by the contracts made under them are still in existence.

Owners in fee could also purchase the tax: in this case it was called land tax redeemed, but not exonerated, and was still paid by the occupiers in the usual way, but handed over to the owner instead of to Government. The option to redeem in this way has been withdrawn; but where it was exercised, the present owner can exonerate his lands by applying to the commissioners, for a certificate of the amount, and producing the original contract, when, if the amount of tax has not altered, the lands will be exonerated; if it has altered, a proportionate sum of money or stock must be paid or received, according as the tax charged on the lands in question is more or less than it was at the time it was redeemed.

Before proceeding to redeem, it is necessary to ascertain that all the property it is desired to exonerate is on the face of the assessment, which is not always the case; if this is not done, the property omitted would be

liable at any time to be reassessed. It also follows that it is necessary that the papers prepared should show, beyond all possibility of doubt, the position and extent of the property redeemed; and for this purpose maps should always accompany the papers, that in future years, if the property is by any error again assessed, there may be no difficulty in identifying it.

It will be evident that it is always advisable to redeem the tax on any land which it is probable will at a future time develop in value more rapidly than other land in the same parish; as, for instance, a part of a parish in such a situation as to be likely to become building land, or under which mines are supposed to exist.

It will also be evident that on land already developed, but upon which the tax is not yet properly assessed, an advantage will be gained by redeeming, lest some other landowner should appeal, and cause the assessment to be equalized.

On the other hand, upon house property, or other fully-developed property, on which the land tax is already properly assessed; it is not generally desirable to redeem, if there is any undeveloped property still remaining in the parish, the increase of value of which may in future years reduce the pound rate; but the extinction of the charge may be by some considered an equivalent for any possible future small decrease in the amount.

In conclusion, I would add, that, as far as my experience goes, some amendment of the law relating to land tax seems desirable. Power of appeal against the decisions of the Local Commissioners, to an official Board is, in the present state of things, necessary to ensure justice. Consider, for instance, the following case:—The Assessor asserted that his assessment was correct, and on an equal pound rate; because he had charged the property at an equal rate in the

pound, on the basis of the poor's rate of thirty years back. The Clerk to the Commissioners confessed himself unable to advise the Commissioners as to the law; and the Chairman, a county magistrate and a barrister, said that he could not admit that property not now on the land tax assessment could possibly be charged with the tax.

If the powers of appeal granted in the case of Income Tax under Section 39 of the Taxes Management Act, 1880, were extended to the Land Tax, it would meet the case, and probably the fact of there being a power of appeal, would have the effect of inducing the Commissioners and their Clerk to study the law of land tax sufficiently to enable them to give correct decisions.

Provision also seems required for legally refixing the boundaries of townships which have been altered or merged: and for defining more clearly the basis to be adopted in assessing the tax. But further than this, it seems a question worth consideration, whether a scheme for the compulsory redemption of the tax might not be desirable; though in this case a new assessment would have to be generally made in strict accordance with the Act. The amount so ascertained could then be made a fixed charge on the property, and could be redeemed by adding such a sum to the fixed annual charge, as would redeem the tax in such a number of years as might be considered desirable.

APPENDIX.

No. 186. 1882.

LAND TAX.

ASSESSORS' APPOINTMENT, WARRANT, AND INSTRUCTIONS.

To *and*
Inhabitants of the Parish, Tithing, or Place of
in the Division of *in the County of*

We, the undersigned, being Commissioners of Land Tax, acting in and for the division of in the county of by virtue and in pursuance of the Acts enabling us in this behalf, do hereby appoint you, the above-named and to be Assessors of the Land Tax for the said parish, tithing, or place of

in the said division and county, for the space of one whole year, commencing on the Twenty-fifth day of March, One thousand eight hundred and eighty-two, or until other Assessors shall be appointed in your stead.

And we do hereby certify, that the gross quota or sum in charge against the said parish, tithing, or place in respect of lands, tenements, and hereditaments, under the provisions of the said Acts, according to the parchment duplicate of Land Tax, under 38 Geo. III., cap. 5, is . . . . . £

And that by the application of surplus Land Tax such gross quota has been reduced by the sum of . . £

And that the net quota remaining in charge is . £

Whereof the proportion exonerated under the provisions of the Land Tax Redemption Act is . £

Leaving to be raised by assessment . £

Your duties as Assessors are to be regarded under two heads, and in order that these duties may be effectually executed in the manner prescribed by the Acts of Parliament relating to the Land Tax, we hereby require you to comply with the following instructions: and

Instructions.

1st.—As to the Proportion of the Quota Exonerated under the Provisions of the Land Tax Redemption Acts.

As to exonerated proportion.

By virtue of various Acts of Parliament, the Land Tax, formerly charged on and paid in respect of many properties, has been redeemed, whereby such properties are exonerated or exempted from all future payments in respect of Land Tax; but, notwithstanding such exoneration, the law requires that so long as any part of the quota charged on any place remains payable in any such place, the exonerated properties and sums redeemed in respect thereof shall be inserted in the assessments to be made for each year for the parish or place, and therefore in making *your assessment you will insert all such properties; describing the same according to the particulars given thereof in the contract of redemption, and placing opposite thereto, and in the column provided for that purpose, the sums redeemed and exonerated in respect of such several properties.* In case any property, after the redemption of the Land Tax thereon, shall have been, or shall be divided by sale or otherwise, into two or more distinct properties, you will insert the same separately in your assessment, bracing them together, and placing opposite thereto the sum of Land Tax redeemed in respect of the whole, without altering or apportioning the amount.

2nd.—As to the Sum to be Raised by Assessment.

As to proportion to be raised by assessment.

The law does not authorize the raising of a greater sum for Land Tax within any place than that remaining unexonerated and payable for such place, therefore you will take care to ascertain the annual value of the unexonerated property within your limits, and to assess the respective occupiers thereof by such an equal pound rate as will produce as nearly as possible the sum of being the amount remaining unexonerated and payable within your limits. In cases where any greater sum is assessed, the Collectors will be required to account for the same in like manner as for the quota, and the surplus will be applied as authorized by the Acts.

In order to raise the said sum so remaining payable within your limits, you are to assess all and every manors, messuages, lands, and tenements, and also all quarries, mines of coal, tin and lead, copper, mundick, iron, and other mines, iron mills, furnaces, and other iron works, salt springs and salt works, all alum mines and works, all parks, chaces, warrens, woods, underwoods, coppices, and all fishings, tithes, tolls, annuities, and all other yearly profits and all hereditaments of what nature or kind soever they be, situate, lying, and being, happening, or arising within the said

parish, tithing, or place, or within any part of the same, as well within ancient demesne, and other liberties, and privileged places, as without, and all and every person or persons, bodies politic and corporate, guilds, mysteries, fraternities, and brotherhoods, whether corporate or not corporate, having or holding any such manors, messuages, lands, tenements, and hereditaments, or other the premises in respect thereof, with as much equality and indifference as is possible by an equal pound rate, according to the annual value thereof, so that by the said rates so to be taxed or assessed as aforesaid, the sum charged upon your said parish, tithing, or place as aforesaid, and no more, shall be completely and effectually taxed, assessed, levied, collected, and paid, according to the true intent and meaning of the said Acts; and the *property assessed* whether exonerated or not exonerated, *must be fully and correctly described by you in the column of the assessment provided* for that purpose.

You are to assess separately every proprietor's houses, lands, and tenements, distinguishing the Christian and surnames of each landlord and tenant, and the proportion that each proprietor or tenant is charged with. And you are to use your utmost endeavours that all estates and other things herein charged may fully and duly pay the said rates and assessments according to the directions of the said Acts, and so as Her Majesty's service therein may not be delayed through your wilful negligence or default, as you will answer the contrary at your peril.

Properties exempt from assessment.

You are not to assess lands or tenements of any poor person which are not of the full yearly value of twenty shillings.

Lands of poor persons.

You are not to assess any college or hall in either of the two Universities of Oxford or Cambridge, or the Colleges of Windsor, Eton, Winton, or Westminster, or the Corporation of the Governors of the Charity for the Relief of Poor Widows and Children of Clergymen, or the College of Bromley, or any hospital in England, Wales, or Berwick-upon-Tweed, for or in respect of the sites of the said colleges, halls, or hospitals, or any of the buildings within the walls or limits of the said colleges, halls, or hospitals, or any master, fellow, scholar, or exhibitioner of any such college or hall, or any reader, officer, or master of the said universities, colleges, or halls, or any masters or ushers of any schools in England, Wales, or Berwick-upon-Tweed, for or in respect of any stipend, wages, rents, profits, or exhibitions whatsoever, arising or growing due to them in respect to the said several places, and employments in the said universities, colleges, or schools. Nor are you to assess any of the houses or lands which, on or before the Twenty-fifth day of March, One thousand six hundred and ninety-three, did belong to the sites of any colleges, or halls, in England, Wales, or

Berwick-upon-Tweed, or to Christ's Hospital, St. Bartholomew, Bridewell, St. Thomas, and Bethlehem Hospitals, in the City of London and Borough of Southwark, or any of them, or the said Corporation of the Governors of the Charity for the Relief of Poor Widows and Children of Clergymen, or the College of Bromley, nor any other hospitals or alms-houses, for or in respect only of any rents or revenues which on or before the said Twenty-fifth day of March, One thousand six hundred and ninety-three, were payable to the said hospitals or alms-houses (being to be received and disbursed for the immediate use and relief of the poor of the said hospitals and alms-houses) only. But nevertheless you are to charge and assess all the houses and lands which are held by lease or grant from the said corporation or any of the said hospitals or alms-houses, for so much as they are yearly worth over and above the rents reserved and payable to the said corporation, or to the said hospitals or alms-houses, to be received and disbursed for the immediate support and relief of the poor of the said hospitals and alms-houses; and all tenants of any of the houses or lands belonging to the said colleges, halls, hospitals, and alms-houses or schools, or any of them, who by their leases or other contracts, are and do stand obliged to pay and discharge all rents, taxes, and impositions whatsoever, shall be rated and pay all such rates, taxes, and impositions aforesaid. Provided, that all such lands, revenues, or rents, belonging to any hospital or alms-houses, or settled to any charitable or pious use, as were assessed in the *fourth* year of the reign of King *William* and Queen *Mary*, shall be liable towards payment of this present aid. And that no other lands, tenements, or hereditaments, revenues, or rents whatsoever then belonging to any hospital or alms-house, or settled to any charitable or pious uses as aforesaid, shall be assessed towards such aid.

Tenants of colleges, &c., to be assessed for the difference between the annual value of property and the rent reserved.

Tenants of colleges, &c., contracting to pay all rates and taxes to be assessed on full annual value of their holdings.

Your several assessments must be made according to the printed forms you herewith receive, and you are hereby required to appear before us, the said Commissioners, or such other Commissioners acting for the said division, as shall be present at in the said division and county, on the day of at o'clock in the forenoon, and then and there deliver in your said assessments; and you will take notice that if any person appointed Assessor shall refuse to serve, or shall make default at the time appointed for his appearance, not having any lawful excuse, to be made out by the oaths of two credible witnesses, or shall not perform his duty, or shall be guilty of any fraud or abuse in the execution of his office, such person shall forfeit such sum as the Commissioners shall think fit, not

exceeding forty pounds, to be levied by distress and sale of his goods in case of neglect to pay the same.

Given under our hands and seals, at
in the division aforesaid, the day of
in the year of our Lord One thousand eight hundred and eighty-two.

} *Commissioners.*

No. 187.

LAND TAX ASSESSMENT, 1882—83.

In the Parish,
Tithing, or Place of

In the Division of

In the County of

AN ASSESSMENT OF THE LAND TAX for the Service of the Year One Thousand Eight Hundred and Eighty Two, made in pursuance of the several Acts relating to the Land Tax.

No. of Assessment.	Christian and Surnames of Proprietors.	Christian and Surnames of Occupiers.	Names and Description of Properties Charged.†		Sums Assessed and Exonerated.			Rentals or Annual Values Assessed.	Sums Assessed and not Exonerated, at . . . . in the £.		
			No. of House.								
				TOTALS							

† NOTE.—This Column must be filled up so as to show distinctly the Property Assessed, whether it be Exonerated or not Exonerated.

We hereby certify the foregoing Assessment made by Us

NOTE.—This Certificate must be signed by both Assessors. } Assessors.

Signed and Sealed by US, the Undersigned Commissioners of the Land Tax, acting in and for the Division of in the County aforesaid, at within the said Division, this day of in the Year of our Lord 1882.

} Commissioners.

SUMMARY OF THE FOREGOING ASSESSMENT ON LANDS, TENEMENTS, AND HEREDITAMENTS, FOR THE YEAR 1882.

If the Assessment on Lands, Tenements, and Hereditaments exceeds the Quota, the Clerk to the Commissioners must insert at the foot of the Duplicate of the Assessments, a Summary according to the following Form.

And the Collector must account for any such Excess in like manner as for the Quota, in order that the Excess may be applied as provided by the Taxes Management Act, 1890.

	£	s.	d.	£	s.	d.
Assessed and Exonerated						
Assessed and not Exonerated						
Total by the Assessment						
Gross Quota or Charge on Lands, Tenements, and Hereditaments, under 38 George III., cap. 5						
Deduct the amount by which such Gross Quota has been reduced by the application of Surplus Land Tax						
Amount to be Assessed for the Year						
Excess on the Assessment						
Amount Assessed and not Exonerated						
Excess on the Assessment						
Net Quota payable to Revenue						

Examined,

Signed,

Clerk. *Date.*

Mr. W. Brown (Fellow) had great pleasure in moving a vote of thanks to Mr. Evans for his very able Paper. The President had remarked on many previous occasions that the Land Tax was a subject on which he hoped that some gentleman would one day read a Paper. That Paper had now been read, and he must say that it showed clearly to his mind that Mr. Evans had studied the subject and made himself fully master of it. He should not make any observations in the way of fault-finding, and the few words he would say would be more by way of elucidation, and in order to add to the information furnished by the author of the Paper.

There was one portion of Mr. Evans' Paper which he must confess himself unable to understand,—the passage, namely, in which he stated that "all property must be rated "in the parish in which it is situated, with the exception of "lands which were formerly open field lands, which may be "assessed in such parishes as they have been assessed since "their inclosure, although they may not lie in the parishes "where they are rated." He would give an instance which had happened in his own parish, which was enclosed about the beginning of the present century, and, although in three hamlets, was then treated as one parish, as it was now, for parochial purposes. Each hamlet, for land and property tax, had a separate quota, and separate collectors. In the chief hamlet certain land and tithes paid upwards of £50, and had continued to do so to the present day, although there were not 120 acres of land, the tithes having been allotted in land in one of the other hamlets. It was stated on authority that there was no power to transfer the tax from one hamlet to another, and that the over-charge, instead of following the tithes, must be spread over the hamlet in which they were originally charged. This would be a great injustice.

The author had remarked upon the inequality throughout the country. He was told that in Marylebone, and he believed in Liverpool, the rate did not exceed a halfpenny in the £. Mr. Evans also stated that the collectors, when the amount exceeded £5, were then to divide it, and so redeem or reduce the unredeemed portions, but he (Mr. Brown) could tell him that in some parishes the surplus just came a little under £5, and by some extraordinary means it had not increased. Reference had been made by Mr. Evans to the loose manner in which the assessments were made. He had in his hand an assessment of a parish in which the assessor had found out a very clever way of making up the assessments. Under the heading "Rental or annual value assessed," after ascertaining what had been the amount of the original land tax, he inserted as many pounds rental as was paid in shillings. The first one, paying £6 a year, he put at £120; and so on all the way through.

As to the difficulty referred to in the Paper of getting the assessment, more particularly of the redeemed portions, he must say that whenever he had applied at the head office he had been able to get the redeemed portions, although, as Mr. Evans had remarked, he had great difficulty in discovering what portions they really referred to. He was charged within the last three years nearly £3 for some property he bought, but having looked into it he found it had been all redeemed, and so got off. There might have been some difficulty as to the assessing of sporting rights; but they were now assessed either in one shape or another. Mr. Evans said that a map should accompany the description. He thought it would answer the purpose at the present day if the ordnance numbers were used.

There was one other question, viz., as to the price of redemption. Mr. Evans said that in the earlier stage of

redemption a great portion was redeemed with Consols at 56. No doubt at that time it was very important and desirable, because it could be done on such easy terms, but now, when Consols were at 103, he doubted whether redemption would go on at any great rate. He should be very glad indeed to see some scheme by which the land tax might be redeemed altogether, and would suggest whether it was not advisable that some further facilities should be given. According to Mr. EVANS, it could not be done much under 30 years' purchase. That was very stiff as compared with fee-farm rents and the like; but there was another reason. In many parishes the moderate sums, so to speak, had been redeemed, while all the properties left were rather extreme. There was no sort of inducement to these owners to redeem, and unless the Government thought proper to give some greater facilities than at present he did not think they would find that redemption would go on very swiftly. He was much obliged to Mr. EVANS for preparing a Paper so full of information, and trusted it might be the means of improving the present mode of assessment and redemption.

Mr. H. C. NEWMARCH (Professional Associate) had great pleasure in seconding the vote of thanks. He had studied the subject to some extent, and felt sure that Mr. EVANS must have experienced great difficulty in dealing with it in anything like intelligible form, but he thought all would agree that he had succeeded in his endeavours and had produced a most able and valuable Paper.

With regard to the difficulty of altering assessments, he agreed with Mr. EVANS that it was very great. Powers had been laid down by certain Acts, but the difficulty and trouble of carrying them out, and, in some cases, the

inability of those in whose hands the assessment of the tax lay, had rendered those powers very difficult of application. In cases where there was nothing on the premises to distrain, the amount required must be reassessed over the parish, but if afterwards a distress could be made on the premises, the amount of the tax assessed on them appeared to be capable of redistribution, and should be returned to the taxpayers.

As to what had been said about outlying parts of a parish, he agreed with Mr. EVANS that the quota must be raised on the land lying in the parish, and that in the case of outlying lands, or of commons and unenclosed fields, they must be treated as part of the parish. The question of Commissioners being interested, no doubt raised a very important question. He believed a Commissioner was liable to a penalty of £20 for acting in a case in which he was interested; and where all the Commissioners were interested it was difficult to see what could be done.

The very remarkable inequalities in the amount of the pound rates in districts lying contiguous to each other was very striking indeed; but it was a great mistake, and one into which people commonly fell, to suppose that it was an injustice. It was not so, but was chiefly owing to a large increase or decrease in the value of property; in fact, within a short distance of the Institution there were very great differences in the pound rate, varying from one penny to two shillings and upwards; but that was in consequence of the increase of the value of property in the district. Where the rate was low, therefore, no injustice was done to the adjoining district, it being merely an accident that property in it had not increased in value in the same proportion.

The origin of land tax redeemed but not exonerated was a curious history, and worthy of attention. The effect of the Act, 38 Geo. III., c. 60, s. 17, passed over 80 years

ago, though long since repealed, was still in force; and he had no doubt it had puzzled many people to see in sale bills and other places, "land tax redeemed but not exonerated." Those who read the Paper would now understand the origin of the expression.

As to the identification of lands redeemed, he thought it impossible in many cases to distinguish them. He knew a case at the present time where a man sold a field some years ago on which the land tax was 10*s.* a year. He had been charged the 10*s.* a year, and now found that the purchaser was also charged and had paid the 10*s.* yearly. He (Mr. Newmarch) believed that there was a large amount of land in England on which the tax had been redeemed, but which was still charged with it; but that it was impossible to prove exactly on what part of the land it had been redeemed and what part was still liable, and, as Mr. Evans pointed out, the land on which the tax is charged must be carefully defined by intending redemptioners.

The inequalities of the tax, as he said, were no doubt traceable to the double tax on land belonging to Roman Catholics, and also to the fact that after the Revolution men who were anxious to support the then Government as much as possible, returned the value of their property at the full amount; but others, differing in their opinions, returned their property at a much lower rate, and in that way the tax on that land was fixed at a much lower rate.

At the present price of the Funds redemption could not be expected to be rapid; but in comparing the present with the early days of redemption, the important difference in the relative value of money should be taken into consideration. It was interesting to look at the amount of tax redeemed during the first few years after Pitt's Redemption Act came into force. The very large amount redeemed at first gradually diminished, and rose again during 1840 up to

1847, owing, chiefly, to the large amount redeemed by railway companies on land purchased by them. Since that time it had gradually decreased, and was now very small indeed. He believed that during the last year there had been no redemptions at all. Redemption would probably be taken advantage of to a small extent by people investing money which they derived from the sale of land under compulsory powers, and from other similar sources.

If the mode of redemption were more commonly known, owners would, perhaps, be more inclined to redeem. He did not think it was generally known that a portion of land tax charged on a certain amount of land could be redeemed. Liverpool had been mentioned, and he believed there the tax had been entirely redeemed. The pound rate was so excessively small, owing to the enormous increase in the value of property, that it could not be assessed. It was therefore allowed to run into arrear for a time, to make it capable of collection; but after a while the system got so inconvenient that special powers were obtained and redemption was made compulsory, and the tax had been paid off. He ventured to think that in many other places a similar plan might be carried out. The benefit to the country would be, in his opinion, very great, if the whole of the land tax could be redeemed; but the great difficulty seemed to be, how was this to be done? He believed that some owners of house property were deterred from redeeming their tax, for the reason that the terms of redemption of the tax on house property were the same as on land, and men did not care to invest their money in the redemption of a tax on property, with only 17 to 20 years' purchase, on the present terms. If the whole amount of land tax could be reassessed in the whole country by merging all districts into one, excluding, of course, lands on which the tax has been redeemed, the

pound rate would be then so excessively low that the redemption of it would be a very small matter, or it might be paid off by an increased payment extending over a few years.

Considering that land tax dated back to the early Norman kings, and that it had been a subject of debate in the House of Commons on many occasions during the last 150 years, that many Committees had reported on it during the last and the present centuries, and that in the records of all of those Committees and debates, a large amount of valuable information was to be found, it was very difficult to thrash out. He thought that the thanks of the Institution were due to Mr. Evans for having dealt with the subject in so able a manner.

Mr. W. C. Little (Fellow), as a Land-tax Commissioner of some years' standing, had listened with great interest to Mr. Evans' Paper on this subject. He confessed he felt conscience-stricken as to the perfunctory manner in which Land-tax Commissioners performed their duties, and believed that the reader of the Paper had not exaggerated in his description. Perhaps he ought to say that he came from a part of the country where the quotas having been fixed before the great improvement of the fens by drainage was carried out, the land tax was not a very serious burden, and was therefore not scrutinized with the same diligence as in parishes where the charge was more heavy.

He thought no one could have listened to the Paper without coming to the conclusion that the land tax was the most anomalous tax in existence—anomalous because of the extreme inequality with which it pressed on property in different parts of the country. There might be no great injustice in this inequality (an opinion he could scarcely

agree with), though the hardship was not great where land had been purchased subject to the present incidence of the tax; but when it was said that it varied from nothing in the £ to about 2*s.*, one must feel struck with the inequality of an imperial tax levied on such a basis. He thought the mode by which the assessment was made was by no means satisfactory.

He supposed that what was done in his own neighbourhood was done generally. It amounted to this, that the Commissioners simply saw that a certain amount of money was raised from each parish, and unless there was an appeal against the assessment it was confirmed. So long as the amount assessed did not exceed the quota by more than £5, no enquiry was raised; and, as Mr. Brown had said, the surplus was generally kept within the £5, and the collector pocketed the £4 19*s.* 10*d.* (or whatever the surplus might be) in addition to the poundage allowed him for the trouble of collection. That was the case whether the parish were large or small. But anyone who felt himself aggrieved by the present system could appeal, although, as had been pointed out, there might be great difficulty in establishing a claim to a reduction of the assessment made upon him. The Land-tax Commissioners—if he might judge by the Board on which he sat—were ready to hear appeals; but the difficulty was that people who fancied they had grievances did not make those appeals. In his own experience of many years they never had an appeal of any importance, except in the case of division of property, where the Commissioners had been called upon to re-apportion the tax. If, however, he wanted to appeal he should find this difficulty. In his parish there was a large quantity of land which was exonerated, and he could not discover, without an application to Somerset House, which were those lands, and could not, therefore, ascertain whether the whole property

that ought to be charged was included in the assessment. He was told that the Commissioners could obtain for their use a record of the property which had been exonerated; but the Commission itself did not possess any such record. Now, it seemed to him very desirable that there should be, accessible to everyone paying the land tax, some record of the lands and properties which had been exonerated. People would then be in a position to enquire into the value of those properties still chargeable, and to see whether they paid their fair share or not.

He thoroughly agreed with Mr. Evans that it would be desirable that the power of appeal to Somerset House which now existed with regard to income tax, should be extended to the land tax. He was sure there would not be any objection on the part of the Land-tax Commissioners to such an appeal, which might make the Commissioners, clerks, and assessors more careful in the performance of their duties.

He was surprised that so little attention had been given to one aspect of the question. There was a disposition at the present time to exclaim against landlords who expressed dissatisfaction with the mode in which rates were levied on land, and a sort of threat was held out that these claims would lead to an examination of this question of land tax, and that the result would be very unfavourable to landowners. It was said that if the land tax were assessed properly, and according to its original intention, at 4*s.* in the pound, some 30 millions would be raised, instead of the miserable million or two which was collected at the present time.

It had been pointed out on the other side by Mr. Brodrick, in his "English Land and English Landlords," and in an appended note to that work by Mr. Humphreys Owen, that this land tax was originally a tax on personal property as well as on land. That was casually mentioned by Mr.

Evans. He thought it ought to be prominently put forward, that it was not until 1833 that personal property was really exempted from this charge; though, as a matter of fact, it had paid only to a very small extent. He believed the illustration used in Mr. Brodrick's book as to the method in which personal property was assessed was this—that if a man possessed £100 worth of personal property, that £100 was assumed to represent an annual profit of £6, and the owner was consequently rated at 4*s.* in the pound on the £6; he therefore paid on £100 of capital, £1 4*s.* per annum, which was a pretty heavy income tax, and one which would be scarcely submitted to by the owner of personal property at the present moment. The modern income tax had, so far as personal property was concerned, superseded the tax which was miscalled land tax; but land was still to some extent liable to the old income tax as well as to the new. He thought it was very desirable that this tax, being so anomalous, should be as soon as possible extinguished, and that the Government should give greater facilities to the owners of property not at present exonerated, for the speedy extinction of the tax; not perhaps by the immediate payment of a capital sum for redemption, but by some increase of the annual payment for a time. If a correct assessment of all property which was still liable, were made, perhaps a small addition to the present amount of tax would suffice to extinguish it in the course of, say, ten or fifteen years.

Mr. E. J. Harper (Professional Associate) would not have ventured to address the Meeting but for the fact that for some years past he had had to deal with a large amount of land tax, and had consequently given a good deal of attention to the subject. All would, he thought, agree that Mr. Evans had made out a strong case against the land tax

as it existed, and, with the indulgence of the Meeting, he would try, if possible, to add a few words to strengthen his case. Mr. EVANS had shown very clearly that, even when the quotas of each parish were apportioned and fixed, a great deal of inequality arose (owing to the hope of the collector to save himself trouble) in copying the assessments for 40, 60, or even a longer period of years.

THE PRESIDENT reminded Mr. HARPER that there were assessors and collectors. They were different people. The assessor was liable for the assessment, and the collector collected it. It might happen that they were the same men.

Mr. HARPER (resuming) agreed that it frequently happened that they were the same men. There was greater inequality than inequality in the parishes, the inequality, namely, over the whole kingdom. There was one little matter that had not been mentioned. Ireland was entirely exempt from the tax, for no reason that he could discover. The inequality dated very far back indeed, and he must beg leave to differ from Mr. EVANS, in some slight degree, as to the importance of the past history of the land tax. It was only from its past history that one could arrive at the reasons and causes for its present absurdities. Mr. EVANS had stated that the land tax was originally collected in a very different form—in fifteenths, &c.,—and that various dues were thus paid to the Crown. In 1660, the feudal system was abolished, and in lieu of it there were imposed, on the manufacture of beer, on the importation of tea and various other articles, certain duties, as a full compensation (as stated in the preamble of the Act) to the Crown for the loss of its feudal dues. Later on it was found that those duties did not bring into the

Exchequer the same amount of gain, and William III. imposed the first land tax. The present land tax dated from 1692. The assessment then made, as Mr. EVANS said, was at the rate of 4*s.* in the pound. The amount having been fixed by that assessment, it was apportioned over the various counties and parishes. It was first applied to England and Wales, and did not extend to Scotland till 1707. Many English counties were scheduled to pay more, singly, than the whole of Scotland and Wales together, and Middlesex alone had to furnish 80 of the 513 quotas. Essex and Yorkshire gave 24 each; Kent and Norfolk, 22; Devonshire, 21; Suffolk, 20. Northumberland, on the other hand, had but four quotas to subscribe; Durham and Monmouth, 3; Rutland, 2; while Cumberland and Westmoreland had the surprisingly small share of one. Each of the Welsh counties contributed one, except Flint and Merioneth, which were responsible for a half each. The whole of Scotland was responsible for 7 quotas. It was plain therefore that the original apportionment was not in accordance with actual justice and equality, and the great inequalities that Mr. EVANS had pointed out in the assessment and collection of the tax, only made the case stronger against the tax as it at present existed. He should be inclined to advocate that the tax be abolished as speedily as possible. It seemed to him it was not a very important matter. The whole revenue of the country was between 80 and 90 millions per annum, out of which the land tax contributed less than 2 millions. It was competent for Government to introduce a Bill providing for a land tax which should be fair and equal, and properly collected over the whole of the kingdom, instead of being charged improperly, as at present, at varying rates from a farthing, or less, to 1*s.* 6*d.* in the pound.

Mr. W. Rex (Fellow) mentioned, in reference to what Mr. Little had said, that a large landowner, whom he knew, had it proposed to him that he should redeem a small land tax. His answer was, "No, my opinion is that if we redeem all these taxes on land, in a very few years it will be said, 'The land pays nothing,' and the taxes will be again imposed," and for that reason he declined to redeem his land tax.

Mr. C. K. Bedells (Fellow) said he had occasion, a very short time ago, to let, on building leases, an estate in Aldersgate Street. It belonged to minors, and he suggested to the solicitors that they should redeem the land tax before rebuilding on it. They replied that it would cost nearly as much to get the consent of the Court, each minor being represented by a solicitor and counsel, as to redeem the land tax, and so proceeded. He believed the original land tax averaged about £2 5*s*. a house. A large warehouse was built on the first plot, and the land tax was immediately put up to £12, and so with the second and third plots. The lessees stipulated that the lessors should either pay or redeem the land tax, and when the third plot was built on the solicitors found they must redeem it, and had then to pay 33 years' purchase on £36, instead of 33 years' purchase on about £6, being a loss to the estate of about £1,000. He gave this example as he thought practical illustrations were useful. He was once concerned for a few houses which happened to be the first six houses built on an estate. He was acting for the mortgagees only. The land tax due from the whole estate was collected, first on No. 1, for the first year, and then on No. 2; and as he happened to hold Nos. 1, 2, 3, 4, 5, and 6, he found that for six years he should have been paying the whole land tax for that estate if he had not represented it to the collector, who said very

good-naturedly, "I will begin next year at the other end, instead of getting it all from you for six or seven years in succession."

He could speak feelingly on the subject of the difficulty of identifying property which had already been redeemed. He was concerned for an estate at Bermondsey some years ago. Before his time a large part of the land tax was redeemed. The moment he came to build on the other parts of it he proposed to redeem the remainder, and then found—10 years afterwards—that for some of the same parts which had been redeemed 10 years ago, and for which there were the proper certificates, the land tax had been paid every year for those 10 years. He said to the Inland Revenue authorities, "Now, as we have paid 10 years' land-tax where we ought not, or my predecessors have done so, will you take it into account in redeeming the remainder?" and the reply was, "Oh, no! there is no possibility of getting the money back again!"

If The President's suggestion, made a short time ago, were carried out—that there should be a little more paid annually for a short period, so as to form a sort of sinking fund—the land tax would be got rid of in a few years.

Mr. Evans, in reply, thanked the Meeting for the kind way in which his Paper had been received. He could have wished that some more experienced Member had undertaken its preparation; but, supplemented by the remarks of Mr. Brown and Mr. Little, it might perhaps be made useful.

With reference to Mr. Brown's remarks as to the assessment of property that had been enclosed, he believed he was correct in what he had stated, that enclosed land might be assessed either in the parish it was then in, or in the one in which it was situated before the enclosure; but

it was a point on which he had not had practical experience, as he had not met with a case similar to the one Mr. BROWN mentioned. As Mr. LITTLE had said, there was a very simple reason why there was no surplus land tax, for as long as the collectors could keep it under £5 they took the surplus themselves. He had not found any great difficulty in obtaining lists of redemptions from the head office, but the real difficulty was that when obtained they were useless, as the lands redeemed could not be identified from the description given.

With reference to sporting-rights he only mentioned that the assessment on these rights was sometimes appealed against, because the appellants thought that sporting-rights ought not to be rated. There was no doubt that they should be rated. He thought that maps should always accompany the particulars in cases of redemption, as very probably, if they did not, in the future it would be very difficult to tell whether the land were redeemed or not.

Some remarks had been made by Mr. NEWMARCH about the power of distraining for arrears. He fancied, from that gentleman's remarks, that he had not studied the "Taxes Management Act of 1880." That Act appeared to over-ride the Land Tax Acts on many points, and he thought that now if there were no distress on the premises, though the tax *might* be reassessed on the parishes, it was not often done; and if it were, he did not think there was now any power of distraining on the premises for those arrears, at a subsequent time, as there used to be; but the two Acts, when read together, were somewhat conflicting.

It had been stated by Mr. LITTLE that the Land-tax Commissioners were ready to listen to appeals, and no doubt that gentleman was very ready to do so, and to help in every way; but he could not say that in his district they met with the same ready response. They had found

it necessary in cases of land-tax appeals to assert their rights strongly to get anything done, and had not always been able, at first, to obtain for their clients the consideration to which they were legally entitled.

He was glad to find such a general agreement that a new and proper assessment, in accordance with the Acts, should be made, and that it would be desirable if some scheme could be formulated by which the tax could be ultimately extinguished. Some interesting information had been contributed by Mr. HARPER as to the way in which the land tax was collected in former times; but the properties on which the tax should be charged, and the gross total of the tax, had been long ago definitely settled, and he thought the particular question, seeing that the proper mode of assessment defined by the Act had been departed from, was how to get it reassessed satisfactorily.

He was rather disappointed that more had not been said about the state of the assessments in large towns, and also that other Members had not given the results of their experience as to whether railways generally had redeemed the tax or not. In his neighbourhood it had been found in several cases that the railways had not redeemed, and then a very considerable portion of the quota was apportioned to the railway companies on appeal, and the landowners consequently obtained considerable relief.

THE PRESIDENT said he would not detain the Meeting many minutes in summing up the discussion. Mr. EVANS had enquired whether the railway companies had, as a rule, redeemed their land tax. It might be assumed that this had depended entirely on circumstances. If the company were likely to be assessed on their railway at a less amount than the houses and buildings which the company had destroyed by making their railway were assessed at, and if

they had a clever Surveyor they would not be advised to redeem the land tax. On the other hand, if the railway passed through agricultural land assessed as such, and upon which they were going to make a valuable railway, a clever Surveyor would advise them to redeem at once. The same railway company, advised by the same Surveyor, would in one parish redeem all its land tax, and in another they would not redeem. He had been a little disappointed that the real difficulties of the land tax, and the application of the Act, had not been more specifically referred to. Every inch of land was liable to land tax unless it could be shown that it was redeemed.

A railway company might redeem the land on either side of a public road; nevertheless, a bridge over the road, supported by piers standing on the redeemed land, was liable to land tax. He had hoped that more attention would have been directed to those words of the Act, "an equal pound rate." He spoke with fear and trembling in the presence of a Land-tax Commissioner as to how the assessors levied the land tax. He (The President) had had occasion to say to Commissioners, "Here am I assessed at £100 on a house which is only worth £50 a year." The reply had been, "We take two years' annual value." He wanted also to draw attention to the collector's instructions to include in the assessment a list of properties on which the land tax had been redeemed. It was rarely done, and he knew of no remedy. As to checking the assessment, one might go to Somerset House and get a certain amount of information concerning the land tax which had been redeemed, but it was impossible, in many cases, to identify the land which had been redeemed. It would appear to be a bit of such and such a property, but whether it was one-half, or a quarter, or the whole of it, could not be ascertained.

If one appealed to the Commissioners and told them

one's property was unfairly assessed, their assessor or collector would say it was very properly assessed. What, under such circumstances, could the Commissioners do? He had suggested a reference in such a case, and as the Commissioners said they had no funds and no power to raise any, he had agreed to pay the whole expense of the reference. A local man, a Member of that Institution (now dead), was appointed. His first enquiry was, "Which is your redeemed land, and which is unredeemed?" Neither he (THE PRESIDENT) nor the Commissioners could tell him. The reference went on for a year or two, and then it dropped, and, what was more annoying, his clients had to pay the tax on the amount assessed. He did not see the connection between what was done now and the olden times, or what was the origin of the tax. There was the fact now that each parish was debited with a certain quota of unredeemed land tax, which must be collected. It operated in this way. If a man had a piece of uncovered building land, he would be unwise if he did not redeem it at once before it got built upon. The quota had to be distributed over the unredeemed lands of the parish in proportion to their annual value. If a man spent money in building, the land became more valuable, and the land tax increased in proportion. Therefore a man having uncovered building land would be likely to redeem, but a man who had already built would be very unwise if he redeemed, because his property had attained its maximum value.

The real summing up of the matter was that no speaker liked the land tax, and that some had suggested methods for its redemption. Before the land tax could be redeemed, there must be some legislative enactment to settle the question as to what lands had been already redeemed. He should think the better plan would be to pass a very short Act of Parliament re-enacting the land tax over all lands,

but exempting those from its operation in respect of which it could be shown that they had been redeemed, and providing means to determine doubtful cases. The better way would be to leave it to a Surveyor to make an award after hearing the parties. When that was done, greater facilities could be given for the redemption of the land tax than there were at present, and he (THE PRESIDENT) would fall back on his old hobby—viz., a plan by which the Government should borrow at 3 per cent., and lend to the landowners the necessary capital at 4 per cent. In this way, in 40 years, the tax would be redeemed without cost to the landowners. One word as to the amount at which the redemption could now be made. The first proposal was 10 per cent. above the price of the Funds; that is to say, that when the price of the Funds was par, the redemption cost would be 110. The amended and existing terms were 17½ per cent. below those terms—viz., 90¾. If 103 be the present price of the Funds, an addition of 10 per cent. brings it up to 113·3. Deducting 17½ per cent., there remained 93·5, which was 31 years' purchase upon the tax.

The vote of thanks having been put and carried unanimously, the Meeting adjourned.

PAPER 113.
No. 196.

LAND RECLAIMED FROM THE SEA.

BY RICHARD F. GRANTHAM (ASSOCIATE).

Read at the Ordinary General Meeting of THE SURVEYORS' INSTITUTION, *April 16th*, 1883.

THE PRESIDENT (MR. E. RYDE) IN THE CHAIR.

THE reclamation of land from the sea has in course of time resulted in valuable additions to the area of the country, and although the full benefit is not always obtained until a few years after reclamation, the ultimate gain to the country is undoubted.

Mr. HYDE CLARKE* in 1845 calculated that there were no less than 300,000 acres of land round the English coast more or less available for reclamation. Meanwhile accretion has been going on yearly, adding still more to that available area, and although considerable enclosures have been made, there is still much work to be done, not only in reclaiming land from which the sea is gradually receding, but in protecting that which is undergoing the process of degradation.

Some of the principal enclosures of recent years have been made on the Norfolk and Lincolnshire coasts; part of Sunk Island, in Yorkshire; Pagham Harbour, Sussex; Islands in Handford Water, Essex; Brading Harbour, in the Isle of Wight; and parts of the estuary of the River Dee.

The old embankments in this country, particularly those along the shores of the Thames, on the coast of Kent, and in Lincolnshire, are ascribed by Sir WM. DUGDALE to the Romans; Romney Marsh, on the coast of Kent, con-

* "Engineering in Holland," Weale's Series, 1843, '44, '45.

taining together with Walland and Guildford Marshes about 60,000 acres, being the earliest of which there is any record. In later times, viz., in the seventeenth century, the Dutch, with their naturally-acquired skill in the art of embanking, were employed in this country; as, for instance, at Brading Harbour, in 1620, when Sir HUGH MYDDLETON called in their aid to form the embankment he made there; in Canvey Island, in 1616, when one-third of the acreage of the island was given to one JOAS CROPPENBURG, a Dutchman, in consideration of his keeping the walls surrounding the island in repair; and in Lincolnshire, in 1626, when Sir CORNELIUS VERMUYDEN, with Dutchmen and Flemings, was engaged in reclaiming the Bedford level or the fen land.

It is proposed in this Paper to deal only with reclamation, without reference to the work of protecting a receding coast-line.

I propose, then, to consider briefly, first, the conditions under which land becomes fit for enclosure; secondly, the necessary works to protect it permanently; thirdly, the cost of enclosing it, and the value when reclaimed; and lastly, the risks and contingent liabilities to which it is subject.

Accretions are formed in the estuaries and outside the mouths of large rivers, and also in bays, parts of which are more or less sheltered; sometimes by change in the direction of currents of the rivers causing eddies and comparatively still water where silt may be deposited; by the meeting of the river current with the tidal currents when both are charged with suspended matter; and by groynes or some protection affording shelter in which water containing silt in suspension may deposit its burden. This deposition takes place more rapidly when fresh water is mixed with saline water.*

* Archibald Geikie, "Text Book on Geology."

The geological formation of the district through which the rivers flow indicates the quality of the material of which accretions are formed, and it may be observed that the rivers Trent, Derwent, and Ouse, which supply the Humber; and the rivers Dee and Severn, for the lower portion of their lengths, flow through the formations of the new red sandstone, and in the estuaries of each of them large and valuable deposits have taken place, forming some of the most fertile land in the country.

The accumulations at the mouth of the Humber and in the estuary of the Wash are, however, due not only to the material brought down by the rivers, but also to portions of the debris from the degradation of part of the Yorkshire coast.

The coast-line from Flamborough Head to the Humber is formed of alluvium, consisting of clay and shingle. The debris from the coast has been transported southwards by the flood tide which flows from north to south; the heavier portions being deposited in the sea, and the lighter portion and fine silt being carried forward into the estuary and assisting in forming the great accretions which now constitute the enclosed lands at the mouth of the Humber and the fen country

In the estuary of the Humber, about 290 square miles have from time to time been enclosed,* while the fens of Lincolnshire include an area of about 680,000 acres, or more than 1,000 square miles.

Accretions formed by the deposit brought down by such rivers as the Humber, the Thames, the Severn, the Witham, and others produce, as I have said, some of the richest and most fertile land in the country, and the figures I shall quote afford evidence of its value. It is therefore of

* Min. Proceedg. Inst. C.E., vol. xxviii., page 474.

the highest importance that the embankments, or walls defending them, should be kept in a sound state of repair, and at a sufficient height.

As regards the conditions under which land becomes fit for enclosing, the process by which accretions, or saltings, as they are locally termed, are formed, is thus described by Mr. JAMES OLDHAM, of Hull, in referring to a reclamation in Sunk Island*:—

"The first vegetable life which presents itself on the soft "mud surface is the well-known marine plant rock samphire, "or 'Crithmum Maritimum.' This is followed by a variety "of wiry rush-like grasses of the sedge genus, and several "descriptions of plants having strong, deep-shooting roots, "and flat, wide-spreading heads, which rest on the surface "of the ground. When the surface of the salt-water "accretion has become covered with vegetable life, and "the ground is well consolidated, it is considered in a suit-"able state to be embanked. Sufficient proof exists that "where embankments have been made before the surface "has become covered with vegetation a long period must "elapse before the land can be rendered productive, and "that it remains in a measure waste and worthless. This, "however, is not the case where the accretions are from "fresh-water deposits, or where but little salt exists in the "water."

He states also that vegetable action commences when the average surface level is coincident with the average surface level of all tides.

Mr. WHEELER, of Boston, informs me that the process of accretion in the estuary of the Wash is similar. The surface is first covered with warp, that is, a mixture of clay and silt. The samphire then commences to grow when the

* Min. Proceedg. Inst. C.E., vol. xxi.

surface is just covered by neap tides. Grass gradually replaces the samphire, which dies off, and the warp, which is the lighter portion of the silt, continues to deposit, mixed with roots of grass and decayed vegetation, and thus forms a very fertile soil, a foot and upwards thick. As soon as that thickness is attained the marsh is fit for enclosure, but the operation occupies a period of 20 or 25 years and sometimes more from the time when the samphire first appears.

The fitness of land for enclosure may be gauged practically by ascertaining the level to which accretion has risen. Mr. WHEELER, whose experience is very great, has found that if projected embankments on the Lincolnshire side of the Wash will exceed 8 or 10 feet in height the land is not ready for enclosing, and that height will be found to be the maximum limit generally, assuming the top of the embankment to be 3 to 4 feet above the highest flood.

But there are many accretions, or saltings, where, although the general surface may be in a condition for enclosing, the area is divided by creeks and rills so numerous, and sometimes so deep, as to render the prospect of ultimate return extremely doubtful. These creeks and rills, however, may be gradually warped by some simple works, by which the land will more speedily be rendered fit for enclosing. It is the practice in Lincolnshire and Norfolk to level the potholes and deep rills; operations which cause the land to warp up more evenly, and save much subsequent expense. In some parts straight grips are cut across the saltings to conduct the water away from the creeks to the main channel, and fagots are then placed across the creeks so as to assist the process of warping.

In the estuary of the Wash the effect of warping has been produced by training the channels of rivers through shifting sands by means of fascine work, which is raised

gradually on the banks of the river as the warp at the back of the fascine work rises, and until the surface is sufficiently high to be covered only at high spring tides.

A similar result was obtained by Sir JOHN RENNIE in the Wash, where he made embankments, and without closing them, allowed the water to flow in behind and deposit its silt, gradually raising the embankments as the surface rose.

In Holland, and also in Lincolnshire, in order to promote accretion, a line of wattles is fixed parallel to the shore-line, and the silt is accumulated at the back of them. As the surface rises another line of wattles is fixed in rear of the first line, and so the level of the surface is raised until it is above ordinary high water.

I need not touch further upon the process of warping, as a clear exposition of it, as practised systematically both in the wet and dry applications, has been given in a Paper read by Mr. T. C. SMITH-WOOLLEY before this Institution in the Session of 1877-8.

It is very generally assumed that enclosures should not as a rule exceed 500 or 600 acres in extent at one time. Attempts to enclose more, often increase the difficulties of closing the embankment, owing to the larger quantity of water flowing in and out of the gap between the tides, often resulting in a breach and a heavy expenditure to repair it. It is obvious, however, that as a rule the greater the breadth of the land to be enclosed in proportion to the length of the line of embankment the less will be the rate per acre of the cost of enclosing.

With regard to the works necessary to enclose land and to protect it permanently from the sea, the situation of the proposed embankment and the height to which it will require raising must be the first consideration.

In Holland, embankments are classified accordingly as

they may be exposed to the greater or less force of the wind and waves, and in this country the various forms, which are mainly determined by the length of their front slope, may be divided into three classes or orders.

The first class embraces all those embankments which are exposed to the direct force of the open sea, and may be illustrated by the following examples :—

The form given to the Dymchurch wall in Kent has a slope on the outer, or sea, face varying in inclination from 1 in 9 to 1 in 6, the top of it being curved to a 7-feet radius. The inner slope was made 1½ : 1, and the width at top 20 feet. The sea slope is protected by a pitching of Kentish ragstone above medium high water, the stones being laid on a bed of concrete. The top level is 10 feet above high water.

The front slope of the embankment recently made to enclose Brading Harbour is laid at an inclination of 5 : 1 and pitched with block chalk 27 feet broad up the face to within 6 feet of the top. The top is now 40 feet wide, and the level of it is about 6 feet above high-water spring tides.

In Foulness Island, at the mouth of the River Thames, the front slope of the most exposed portion of the walls is laid at 3 : 1 and 4 : 1 and faced with Kentish ragstone pitching laid on chalk 5 to 6 inches thick. The stone pitching is grouted in with Portland cement and sand where most exposed to damage from the wash of the sea.

The second class comprises embankments situated in the estuaries of large rivers or in sheltered bays, but not exposed to the force of the open sea.

At Louth, in Lincolnshire, the inclination of the slopes of the embankment of a reclamation were made 3 : 1 and 5 : 1 on the outer slope, and 1½ : 1 on the inner side. The top was 6 feet wide. The sea slope was protected by sods cut 4 inches thick and 1 foot square. In the neighbourhood of

the Nene Outfall the sea slopes have been laid at the rate of 4½ : 1, the top width 4 feet and the height about 12 feet above the surface of the land. Part of the sea slope where most exposed was faced with stone while the remainder was flagged with sods.

In Sunk Island, on the River Humber, the slopes of the embankments have been variously laid at 5 : 1 and 3 : 1 on the outer side, according to the more or less exposed situation of the embankment, and 1½ : 1 on the inner side. The widths at top were 3 and 4 feet.

The front walls, or embankments, of Canvey Island, in the River Thames, are now being repaired, and the front slope is laid at inclinations of 2½ : 1 and 3 : 1, pitched with Kentish ragstone 12 inches thick on a bed of broken stone 12 inches thick in the thickest part. The back slope has been made 1½ : 1, and the top 4 feet wide at a level of 4 feet above the highest known tide. Since the level of the top was fixed, the tide of February 19th, 1882, rose 1 foot higher than any previous tides, leaving the top of the wall only 3 feet out of water.

The third class includes those embankments which are not exposed to the wash of any great wave, and are situate in inland creeks and on the banks of most rivers. The front slopes of such embankments need not exceed an inclination of 2 : 1, and are sufficiently protected with flagging of sods. Similar embankments will be present to most minds without further notice.

Stone pitching and flagging of sods have been referred to as the protection for slopes prevalent in this country, but various forms of covering, such as layers of reeds called crammat, fascine work, and brushwood, are used in Holland, where stone cannot be obtained. Where, however, stone can be procured, it is the proper material for the face.

My object in mentioning these points, which are, strictly

speaking, foreign to the objects of this Institution, is to afford means of estimating the cost of operations of the kind. Although no absolute rules can be laid down for the slopes of embankments, inclinations varying from 5 : 1 as a maximum, to 2 : 1 as a minimum, according to the nature of the soil and the material used for covering the slope, will be found safe for the front slopes generally, except that for those of the first class the lower portion of the slope may require to be flatter, possibly as much as 10 : 1; while 1½ : 1 is sufficient for the back slope. Four feet should be the minimum width at the top for all embankments except under special circumstances, and four feet the minimum permanent height above the highest flood tides for embankments of the first and the second classes.

It is not proposed to enter into the details of the engineering works necessary for the closing of embankments, or stopping of a breach, or crossing large creeks, further than to allude to the care required in closing the embankment. When once the sea has found its way through a bank, in a few tides a hole 20 feet deep below low water will probably be scoured out through the gap, and great difficulty, with heavy costs, incurred in repairing it.

Captain PERRY's description of the stopping the Dagenham breach, and Sir JOHN HAWKSHAW's paper* on the breach in the middle level drain, afford information as to the difficulties likely to be encountered and the means of overcoming them.

The cost of recovering land from the sea varies so much even in the same locality that no rule can be laid down by which an estimate can be framed; each case varies according to its circumstances. At the same time, it may be stated that the rate of £20 per acre is generally looked upon as

* Min. Proc. Inst. C.E., vol. xxii.

the limit of expenditure on the works of embankment and sluices. If, however, the area of land to be reclaimed is not too large, and the time for enclosing it and the line of embankment are judiciously chosen, the cost need not exceed or even approach that sum, as the figures quoted below will show.

The following figures show the extent and cost of works carried out in Lincolnshire and in Essex.

	No.	Lgth. of embkt. Chains.	Area. Acres.	Tot. cost. £	Cost pr. chain. £	Cost pr. acre. £	s.	d.
Lincolnshire.	1.	164	310	7,000	43	22	12	0
	2.	180	400	5,574	31	13	19	0
	3.	40	60	795	20	13	5	0
	4.	80	100	1,469	18	14	14	0
	5.		130	4,000		30	15	0
	6.		1,000	12,000		12	0	0

The above were made of silt from 8 to 10 feet high, and faced with clay and flagging of sods.

	No.	Lgth. of embkt. Chains.	Area. Acres.	Tot. cost. £	Cost pr. chain. £	Cost pr. acre. £	s.	d.
Lincolnshire.	7.	105	699	5,250	50	7	10	2
	8.	145	458	8,073	56	17	12	0
	9.	250	1,218	19,409	78	16	0	0

Nos. 7, 8, and 9 were made of warp and silt about 12 feet high, and faced in some parts with stone, and in some with sods.

	No.	Lgth. of embkt. Chains.	Area. Acres.	Tot. cost. £	Cost pr. chain. £	Cost pr. acre. £	s.	d.
Essex.	10.	152	360	5,650	37	15	14	0
	11.	144	175	2,100	14	12	0	0

These last were made of clay or alluvial deposit 6 feet high, faced with flagging of sods.

	No.	Lgth. of embkt. Chains.	Area. Acres.	Tot. cost. £	Cost pr. chain. £	s.	d.	Cost pr. acre. £	s.	d.
Sunk Island.	12.	276	700	2,926	10	12	0	4	3	8

In the marshes on the banks of the River Swale in Kent, embankments from 9 to 10 feet high have cost from £7 to £10 per acre, made of clay.

The cost of levelling and trenching varies from £3 to £5 per acre, and of ditching and draining from £5 to £6 per acre, and these charges must be added to the cost of enclosure.

Saltings, or accretions, for some time before the surface reaches the fit level for enclosure, afford good pasturage for sheep, and realize a rent varying from 2*s*. 6*d*. to 10*s*. per acre.

The enclosures No. 2 and part of No. 6, in the foregoing list, sold at about £45 to £50 per acre.

Nos. 3 and 4 let immediately for from 40*s*. to 42*s*. per acre on lease.

The best part of No. 6 realized £80 per acre, and the rent generally obtained for Nos. 1 to 6 was about 40*s*. per acre.

Nos. 7, 8, and 9 let at rents varying from 40*s*. to nearly 60*s*. per acre immediately after enclosure, and were sold for from about £55 to £70 per acre.

Nos. 10 and 11 have been estimated to obtain a rent of 10*s*. per acre when first enclosed, and 40*s*. per acre ultimately, the value being taken at £18 per acre at first, that is, ten years ago, and £40 at the present time.

Some reclaimed land in the estuary of the River Dee returns a rent of from 20*s*. to 52*s*. per acre.

In the valley of the Swale, Kent, the value of newly-reclaimed land rises from 10*s*. to 20*s*. per acre in about five years after enclosure, and ultimately to 40*s*. and 45*s*., as grazing land.

The breaking in of the sea depreciates the value for many years, and I know of cases where, after eight years, the land has not recovered from the effect.

The cost of maintaining the walls or embankments must next be considered, and will be found to vary very much.

In one case in Essex the cost amounted to 7*s*. per acre.

In Canvey Island, over a period of 66 years, from 1815 to 1880, the cost averaged 4*s*. per acre over an area of 3,000 acres. This rate included the cost of stone used during that time, but is exclusive of the heavy repairs now in course of execution. The gales of 1881 seriously damaged the banks, which had not been duly kept up, and the cost of repair is now very great.

On the Lincolnshire coast the cost varies from 6*d*. to 10*s*. per acre.

The cost of repair will, of course, be affected by the more or less substantial construction and perfect condition of the works.

With regard to the treatment of land when recovered from the sea, the first work to be done is to level the land as nearly as possible, filling up the pot-holes and the smaller creeks when that work has not been properly done prior to enclosure. In some places, as, for instance, at the outfall of the River Witham, the surface is then trenched or ploughed up and sown with oats, followed by wheat. When the soil is good those crops are found to succeed, but in some cases grass is preferred until the salt is washed out. In reclaimed land near Dovercourt, Essex, rapeseed, mustard, and oats are taken as the first crops after reclamation, but any crops are found to answer except peas and beans. Grass, however, has now been laid down, as pasture land and mowing hay for the London market are found to pay better than corn crops. The soil consists of a deposit of mud overlying the London clay.

In the valley of the Swale, Kent, the surface is levelled by digging and filling the holes and creeks. After a

few months, rapeseed or coleseed is planted and fed off, and in a year or two the land is laid down for permanent pasture. This land is generally strong clay deposit.

An account of the reclamation of Brading Harbour, by Sir HUGH MYDDELTON in 1620, is given in SMILES' "Lives of Engineers," where it is related that Sir HUGH tried wheat, barley, oats, cabbage, and rapeseed, and found that, with the exception of rapeseed, they produced nothing. The soil consists of an alluvial deposit overlying silt.

Since the recent reclamation of the land of that harbour, wheat has again been tried, but with indifferent success. The best treatment of the land is to lay it down for permanent pasture.

We have lastly to consider the risks and contingent liabilities to which land below the level of high water is subject after it has been reclaimed.

The case of *Hudson* v. *Tabor* supplies an illustration of one such risk, and, although it is so well known, it may be worth while to repeat the facts.

In March 1874, an unusually high tide overflowed the river wall forming the frontage of TABOR's land in Barling Creek, Essex. The water flooded the land of his neighbour HUDSON, who had from time to time raised the walls which surrounded his own land, and which were sufficiently high to prevent inundation, while, as he alleged, TABOR had neglected to keep his wall up to the proper level. HUDSON thereupon brought an action against TABOR to recover damages.

After much litigation, it was decided that TABOR was under no liability to keep his wall up for the protection of his neighbour. There was no Commission of Sewers in the district.

In places, therefore, where there is no Commission of Sewers charged with the duty of maintaining the walls,

every man's land below the level of high water must, where required, be entirely defended by a wall under his own control, or he will be exposed to the risk of the neglect of his neighbour.

On the other hand, no one can be compelled to keep up a wall for the benefit of his neighbour, when he does not consider it to his interest to do so.

Although the tide overflowed so long ago as 1874, the land has not yet recovered the damage done to it by salt water.

Another important case, which has already been referred to in this room, affecting the liability of owners of similar land is that of ABBOTT and the Commissioners of Sewers for the Fobbing Level.

ABBOTT was liable for the repair of a wall fronting the Thames. It appears that he had repaired the wall, and the Commissioners of Sewers had viewed it before the storm of January 1881. This storm broke through the wall and caused damage to the extent of about £10,000. An order was made, by the Commissioners, on ABBOTT to repair, but he has contested his liability, and declares that the cost should be spread over the whole level. The Court has directed that it should form a special case.

A precedent for this case is related in Sir WILLIAM DUGDALE's work on Embanking, where it appears that in the reign of EDWARD II. the Bishop of LONDON was held liable for the repair of a breach in the river wall between St. Katharine's Hospital and Shadwell under similar circumstances. The jury, however, found that the cost of the repair should be borne by all the lands subject to the peril.

Mr. R. B. GRANTHAM,* in his report to the Inclosure

* "Reports on Floods in Somersetshire, 1872, 1873."

Commissioners upon the Floods in Somersetshire in 1872, 1873, remarks upon the condition of the sea walls between Burnham and Highbridge, which are under the jurisdiction of the Commissioners of Sewers for the Burnham Level and for the Huntspill Level. The walls are divided by "dole" stones, on which are marked the initials of the names of persons whose duty it is to keep the respective lengths in repair. But in some instances the land immediately behind a certain length of wall does not belong to the person who is bound to maintain it, and the consequence is that nothing effectual is done to keep the walls up. In some places they are very narrow, and the inner side is nearly upright; in others backed by slight planks, and in others crumbling down. The walls are not of uniform height, and those who are disposed to raise their portion of the walls are at a loss to know the proper height, as there is no standard gauge except the occasional warning of a high tide. The system of employing dyke-reeves, who are mostly farmers in the district, is essentially bad, inasmuch as they are quite unfitted for the discharge of functions of the kind.

Although the disasters which have occurred to sea and river walls are generally attributed to some exceptionally violent storms, I believe that many of them are due to a want of proper system of inspection and timely repair. The common practice of an annual view by Commissioners having charge of walls who are not unfrequently interested in keeping down expense, and the care of a marsh-bailiff, or dyke-reeve, employed at about 18*s.* to 20*s.* per week are insufficient to keep the walls in an efficient state of repair. All apparently goes well until some more or less heavy storm finds out the weak places, and then damage ensues which is far more costly than any constant system of repair.

Seeing, then, the risks to which land below the level of

high water is subject, the maintenance of all banks and walls surrounding it in proper repair up to a standard height and width at top cannot be too strongly insisted upon. To attain this object a uniform system of control is essential, and the divided responsibility involved in the principle of *ratione tenuræ* should be abolished.

I have now only to allude to the points which require special consideration in any scheme of reclamation :—

(1) Whether the land proposed to be recovered from the sea is ripe for enclosure.

(2) The length and sectional area of embankment, in proportion to the area of land to be reclaimed.

(3) The position, dimensions, and depth of the sluices.

(4) The probable cost of the works and the improved value of the land.

(5) The proper opportunity for closing the embankment.

As before stated, small enclosures are to be preferred to large ones, and no enclosure should be made until the land is ripe for it. The growth of accretion is extremely slow, extending from 25 to 100 years. Works may be designed to facilitate it, but the margin of salting, or accretion, is generally defined, and the enclosure should not exceed the margin.

I am indebted to Mr. Jackson, of Holbech, to Mr. John Clutton, to Mr. W. H. Wheeler, of Boston, to Mr. Harding, of Lynn, and to Mr. Walker, of Dovercourt, for many particulars contained in this Paper.

Mr. Christopher Oakley (Fellow) had much pleasure in proposing a vote of thanks to Mr. Grantham for the able and interesting Paper he had read. He (Mr Oakley) had no special knowledge of the reclamation of land, but he was sure that everyone would agree that the subject had been put before the Meeting in a very lucid manner. It was an important question, and, so far as he was aware, had

not before been under consideration by the Institution. It was a subject which lay quite within the province of the Members to discuss, though he was afraid, at the present time, it would not have the same interest as it would have had if the land market were in a more satisfactory state. He feared that the figures of the cost of reclamation, with the addition of all the subsequent expenditure and risks attending it, were not such as to induce people, having regard to the present price of land, to embark in such speculations. In reference to one point, viz., the great difficulty in maintaining the walls when the work was finished, an illustration occurred to him (in a part of Chichester Harbour, east of Thorney Island), where large reclamations were made some years ago, and a large tract of land (nearly 1,500 acres) was enclosed. The wall across the deepest water stood but a short time, before a breach was washed in it which remained up to the present time, and anyone wishing to embark in an engineering enterprise and a land speculation might have the privilege of trying to make good that breach. It was only fair to add that a large area was enclosed by two other walls, and was let on lease to several tenants, at £2 an acre, but he did not know what the outlay was. In the latter part of the Paper Mr. GRANTHAM referred to the question of the cost of maintaining existing walls and of protecting land from the sea. That was a point more generally interesting to land-agents, perhaps, as coming more frequently under their personal observation, and was one which was well worthy of discussion, both as regarded the practical and the legal bearings of it, to which latter Mr. GRANTHAM had referred. The author had given several figures as to the cost of the maintenance of walls. From his (Mr. OAKLEY's) knowledge of one level on the coast of Essex, the cost had been, for many years, 20*s.* in the £ on the annual value, for several

years 30*s.*, and was now 35*s.*, and the wall was condemned as unmaintainable. He had recently attended a meeting of the commissioners and landowners, and found they were quite at a loss to know what to do.

This led him to another point, viz., whether it would not be possible to get some clause added to the Bill now before Parliament—the Rivers Floods Prevention Bill—giving some machinery applicable to providing and maintaining sea-walls, and the sluices in them which drained the uplands. In the case referred to, owners were threatening to refuse to pay rates, the land not being worth the rate payable on it. The commissioners wanted to borrow money to rebuild the wall, and could not do so, as they had no security to offer. The Institution, which was well qualified to do so, might see its way to taking some action with respect to the Bill, which did not touch on the protection of land from the sea, or the carrying of upland water through or over sea-walls. It only applied to the valleys of rivers. Some means were required of adjusting the rate according to the position of different lands. In the case referred to, persons two miles up the country were paying the same rate as those whose land was on the sea-coast.

The President remarked that Mr. Grantham's Paper was quite wide enough for the discussion of all matters connected with embankments. He had given the cost of reclaiming per acre, maintenance, and the annual value of land when reclaimed per acre. All these seemed to be questions within the scope of the discussion, and equally so were Mr. Oakley's observations. If he understood Mr. Oakley rightly, he put the rate of the particular land to which he referred at 35*s.* in the pound.

Mr. A. M. Dunlop (Fellow) had much pleasure in

seconding the vote of thanks to Mr. GRANTHAM for his able Paper, which dealt with a subject of great interest to many Members of the Institution. He observed that Mr. GRANTHAM stated that "some reclaimed land in the estuary of the River Dee returns a rent of from 20*s*. to 52*s*. per acre." He presumed that he referred to some other portion of the estuary than the large reclamation which had been in progress for the last 10 or 15 years. That reclamation had proved an utter failure, and the land, so far from being worth 20*s*. an acre, was not of the value of 20 farthings an acre. He was not prepared to say it was impossible to reclaim that land, but he had been passing it about a dozen times a year for many years past, and the gap in the bank seemed to get wider and wider every year, instead of narrower, and there was no signs of any reclaimed land.

The practical question was what advice was an agent to give an owner with respect to enclosing land from the sea? He might mention that on some estates which he had the management of, there had been enclosed considerable tracts of land in Essex, Lincolnshire, and North Wales. The last tract he enclosed in North Wales was on a tidal river, and after heightening the embankments it was not worth more than 20*s*. an acre for many years. In this case the difficulty was how to get rid of the back water. He tried various experiments; one was putting up a windmill to pump it out, but, owing to the configuration of the country, the contortions of the wind were such that the machinery often got dislocated, and had eventually to be abandoned. He then resorted to diverting the water from the side of the mountain by means of a catch-water drain, and succeeded in getting a great body of this water into the tidal river outside the embankment. Then came the question of subsoil drainage, and after persevering for some years, with draining and redraining, he managed, though the soil was

peaty, to raise the value of the land to from 40*s.* to 50*s.* an acre, but what it cost the owner he was afraid to say; and he should certainly hesitate to advise a client, unless very rich, to embark in operations of the kind with a view to profit, seeing that in the case he referred to nearly the value of the freehold was expended in reclaiming the land.

In a district in Lincolnshire, where there were facilities for enclosing a greater area, with plenty of stone-facing for the embankments, the cost was less, but, nevertheless, amounted to 8*s.* to 10*s.* an acre to keep and maintain in repair.

He entirely agreed with the author's remark that to employ dyke-reeves at 18*s.* to 20*s.* per week was to throw money away. These men were not qualified for the work unless they were under the superintendence of a practical agent or engineer.

He agreed with Mr. Oakley that the Rivers Floods Prevention Bill, which would probably become law before very long, should contain provisions for carrying out reclamations, when this could be done with advantage, and he trusted that the influence of the Institution would be exerted with a view of procuring the insertion of the requisite powers in the Bill.

Mr. G. Webb (Fellow) could speak with some experience as to the cost of reclamation, as he had been engaged in work of the kind for some years. His expenses in connection with it had been, for many weeks, nearly £100 a week, and were likely to remain at that figure. A very important consideration in any contemplated enclosure was the state of the frontage,—whether level saltings or deep rills. In a small enclosure on his own land he had to deal with three or four very bad rills—one 250 feet across, another 200 feet, and another 220 feet—as well as two smaller ones, and, after

taking the best available advice, he made up his mind to leave the two deeper rills to the last. As a caution to others it was only right to say this proved to be a great mistake, for having to compete against the great rush of water, which at the last was necessarily confined to a very narrow space, the difficulty of shutting out the tide had been very great. Fifteen years ago he enclosed 100 acres, near Faversham, which cost about £25 an acre, without the subsequent expense of facing with ragstone. That land, which was formerly worth about 6*s*. an acre, was now valued at 20*s*. an acre. The estimated cost of his own enclosure to which he had referred was about £6,000 or £7,000, but he was sorry to say it would cost him nearly three times that sum before he had done with the work. He had not anticipated any difficulty in stopping the water out, but the rush was so great that one rill cost him £5,000. It might be interesting to mention that this land, which was purchased by his grandfather 80 years ago, and which had previously gone to sea 17 years, making altogether 97 years unenclosed, had accreted about 15 inches during that time. The accretion was perfectly level over the whole 250 acres of saltings he had enclosed. There was not, in fact, for a distance of two miles, half an inch of difference in the level. He had now spent about £19,000 on the work. The two wide rills had absorbed the greater part of the outlay, costing, as nearly as possible, £10,000. The rush of water was so great that one day the boat conveying the men from their work was swept away, and two of the occupants were drowned. Altogether three men had lost their lives over the work.

He was now enclosing an adjacent marsh much more easily, as there were only three bad rills in it, which were already got over. He estimated the cost to enclose at £30 per acre. It was not yet solid enough to drain, but after

being drained it would perhaps be worth 40*s.* an acre. Out of the 250 acres, about 100 acres were entirely bare, without any sort of herbage whatever.

He saw no reason why the land should be first of all covered with samphire to make it ripe for enclosure, for after the wall was up the land would grow grass as well as any other herbage. He was now cultivating and sowing his own land with the best grass-seed, and he hoped in time to get it completely covered. The sea had now been shut out about 18 months.

Sir Heron Maxwell, Bart. (Visitor), hoped that the work of reclamation would be persevered in, despite the discouragements referred to. Every acre of land reclaimed was an addition to the national wealth, and the gratitude of the country was due to those who had interested themselves in matters of the kind.

Mr. R. B. Grantham (Associate of Council) had suggested the writing of the Paper just read, as the subject seemed eminently suitable for The Surveyors' Institution, involving as it did so many considerations connected with practical agriculture and the development of landed estates. He might observe, with reference to the remarks of previous speakers, that in many instances no regard was paid to the nature of the land sought to be reclaimed, nor to the practicability of enclosing it, and failures often arose from the neglect of one or other of these considerations, which were of equal importance. It was, in fact, an important land question as well as an important engineering question, and was regarded in the profession as one of the most critical, both as regards cost and risk, in which any engineer could be engaged.

In 1867, a Paper was read at the Royal Agricultural Society on this question by Mr. Shellabear, then agent to

Lord LEICESTER at Holkham. He (Mr. GRANTHAM) took part in the discussion that followed, as did Mr. (now Sir) JOHN HAWKSHAW, Mr. LAWRENCE, Mr. HARDING, of Lynn, and Mr. HOLLAND, all of whom supported the author's views. Reference had been made by Mr. DUNLOP to the enclosing of part of the estuary of the River Dee. He himself had something to do with that enclosure, having been sent by the Enclosure Commissioners to inspect it. He came to the conclusion that it had been begun in quite a wrong manner, and recommended the adoption of the most suitable part of the embankment and the abandonment of the line they were then taking. The promoters attempted to cross a deep creek, at that time four or five feet in depth, but it scoured out twenty-one feet deep and very wide as soon as they attempted to close it up. Since that time he had had nothing to do with the enclosure in question. It was a serious work to attempt to enclose 2,300 acres by a bank two miles in length, with a sea such as that at the mouth of the Dee, which was very heavy at times. There was a great deal of accretion inside the bank, and a great inducement for the reclamation, but not on the scale proposed. At the point nearly opposite Mostyn, between that place and Chester, the Dee had been enclosed from time to time (as the accretions were formed and were ripe) by low banks, which had consequently not proved difficult to construct.

Reference had been made by Mr. OAKLEY to the repair of sea-walls. Some provisions to secure their efficient repair ought to be incorporated in the new Rivers Conservancy and Floods Prevention Bill. It was a very hard case, as had been mentioned in the Paper, that a person having a very large area of land needing protection should be at the mercy of the owner of a few yards of frontage who was neglectful of his duty.

He had no great faith in attempts, like Mr. WEBB's, to grow grass so soon as 18 months or two years after the land had become clear of salt water. In most cases grass would not grow until the land had undergone some preparation by root crops (cereals were less suited), which assisted in getting rid of the salt by opening the soil and letting in the air, sun, and rain.

Mr. C. JOHN MANN (Fellow) would be glad of some information as to one item of expense that came after reclamation; the cost, namely, of procuring fresh water for the land. He had had something to do with the district to which Mr. GRANTHAM had alluded in his Paper, and had found it very costly to supply fresh water for the buildings and for the use of the stock.

Mr. CHRISTOPHER OAKLEY desired to add (as the figures he had stated seemed to excite surprise) that he referred to the level of Tendring, containing about 700 acres, rated at about £750. There were about two miles of wall lying about two miles from Walton-on-the-Naze, exposed to the whole force of the German Ocean, without any saltings in front of it. The whole of the expense fell on the owners of that acreage, although there were thousands of acres of upland, the drainage of which came through the sluice, which was a source of great expense. He thought some extension of the Rivers Floods Prevention Bill was desirable, to meet a case of the kind.

Mr. J. M. COLDWELLS (Visitor) said he had been for some years on the Croydon Local Board of Health, as well as a member of the committee of the Beddington Farm at the time when that farm was taken for a term by a company. He subsequently accepted and now held an appointment in connection with the Brading Harbour Works. The

area of the reclamation was 850 acres. The river, which had been cut through for a distance of 1½ miles, was the means of draining the area. He commenced the reclamation of the level at Brading last September. It was in large plateaus, running down to creeks, and having been drained some two years or more, would now bear the weight of horses on most parts of it. The surface-water had been lowered 18 inches or 2 feet. He had been able to get harrows on with the ploughs, and to frequently turn the land over in a shallow way, so that it could be acted on by the atmosphere, the rain, sun, and frost. He had no faith in sowing reclaimed land with grass at once. It was money thrown away to attempt to cultivate land reclaimed from the sea before spending a little money on turning the surface over from time to time. He was now dealing with about 100 acres in much the same manner as he would deal with an old farm. He had ploughed and harrowed it again, and there had been a considerable area of barley and oats grown. He was also adding some roots. He was confident from what had been done, particularly where the land sloped towards the creeks, that a good crop even of cereals could be got, and was most sanguine of being able to show such a crop next summer.

Mr. R. F. Grantham, in reply, said that Mr. Oakley had referred to the cost of enclosing, as compared with the value of the land when enclosed. He thought his figures, as far as they went, referring to particular parts of the country, showed clearly the great excess of value over the cost of enclosing, after allowing for internal improvements, such as ditching and draining. He certainly thought that the Rivers Conservancy and Floods Prevention Bill should include some provision for protecting the sea-board lands from floods by the sea, and he thought some provision

should be made so that the Conservancy Board should have it in their power, as the executive, to undertake the repair of walls, and spread the cost over the whole area: not as was the case in Somersetshire, where the Commissioners of Sewers called on a man to repair, and, if he did not do it, undertook it themselves. Mr. Oakley had mentioned the cost of the repair of walls as from 20*s.* to 35*s.* in the £. He knew a case where the rate for repairing the wall was £3 10*s.* an acre, but that was a very exceptional flood, and an exceptional damage. He did not know whether Mr. Oakley put that as the annual cost.

Mr. Christopher Oakley: The annual cost over a series of years.

Mr. R. F. Grantham (continuing): Mr. Dunlop had mentioned the River Dee, and asked where the land alluded to in the Paper was situated. The land was nearer Chester than that which had recently been attempted to be reclaimed. As to advising on the reclamation of land, he thought the chief points to be observed, were not to attempt to take in too large an area at a time, and not to enclose it before it was ripe. He agreed with Mr. George Webb, that saltings in front of the walls were a great protection, and that the walls were not so heavy to make where there were large saltings, and not so heavy to maintain. When a deep river ran in front a long slope and a large amount of stone was required, and the cost was heavy for making and repairing. The rest of Mr. Webb's observations, he thought, corroborated the Paper almost entirely, except as to the cost of £19,000, or thereabouts, for enclosing 240 acres. The cost of £25 per acre was not excessive, compared with one or two cases which he had mentioned in the Paper, and the letting

value of 10*s*. to 20*s*., he thought, was, as nearly as possible, what he had stated in regard to reclaimed land on the Swale. There was an observation in the Paper that, where rills were deep and numerous, it was very doubtful whether the land was worth enclosing, and he thought that might apply to the case referred to by Mr. WEBB. The 15 inches accretion in 97 years, which had been mentioned, coincided with what he had said in the last part of his Paper, that it took from 25 to 100 years to accumulate about a foot in thickness. The cost of a wall when faced with stone, was very heavy indeed, and, generally speaking, walls were not made, particularly in Lincolnshire, unless there were some considerable saltings and accretions in front, so that it was not necessary to stone the face. Stone might not be used immediately, though after a time it would be required on the face in some places.

With regard to Mr. MANN's question, to obtain fresh water was a difficult matter. In Essex it had been necessary to bore down 200 or 300 feet into the chalk. There were other ways of bringing it in by conduits or pipes from the high lands, but it was really cheaper, perhaps, to bore down till a water-bearing stratum was reached.

He was slightly misunderstood by Mr. COLDWELLS as to the time when the land would be reclaimed. The land took 25 years to accrete before the time arrived when it would be fit to enclose. He did not say that it would take 25 years after enclosure before the land could be brought into cultivation. He had now only to thank the Meeting for the patient hearing and cordial reception given to his Paper.

THE PRESIDENT, in summing up the discussion, observed that he had himself had some experience in these matters in the early part of his professional career. When a young

man he had, what he then thought, the great honour of being appointed Surveyor to the Lincolnshire Estuary Company, and spent a good deal of time in making surveys in that capacity. No success attended either his surveyorship or the projected reclamation. The envy of his Company was, however, excited by constant reminders that a similar work, undertaken in the immediate neighbourhood, had proved a great success—he referred to the Norfolk Estuary. Anybody who wanted to reclaim land or wished to lay out a large sum in the purchase of saltings, had better pay a visit to that land, and make enquiry as to the cost of the operations. He did not gather from the speakers that they would care to have much to do with buying this sort of land. Certainly Mr. DUNLOP, nor even Mr. COLDWELLS, did not speak very encouragingly of such undertakings.

He might safely say that the general conclusion seemed to be that people should act with extreme caution in reclaiming land from the sea, and in reference to what they proposed to do with it after it was reclaimed. The keeping up of the banks seemed to be a very serious matter in some cases, and it would probably be well if some provision could be inserted in the Rivers Floods Prevention Bill to meet some of the difficulties complained of in the Paper.

Notwithstanding what Mr. WEBB, who was a great authority, had said, he did not believe in sowing corn or grass upon newly-reclaimed land. He was of opinion that root crops were far better for the purpose.

The Paper was a very useful one, and had given rise to an interesting discussion, and the Institution was under an obligation to Mr. GRANTHAM for the trouble he had taken in preparing it.

The vote of thanks having been put and carried unanimously, the Meeting then adjourned.

PAPER 114
No. 197

STATEMENT AS TO THE ORIGIN, ARRANGEMENT, AND RESULTS OF THE SYSTEM OF PROFESSIONAL EXAMINATIONS.

BY J. C. ROGERS (SECRETARY).

Read at the Ordinary General Meeting of THE SURVEYORS' INSTITUTION, *April 30th*, 1883.

THE PRESIDENT (MR. E. RYDE) IN THE CHAIR.

THE Council, being of opinion that the Report on the recent Examinations might with advantage be made the basis of a statement for the information of the Members, have directed me to undertake its preparation, and have further instructed me to preface the statement with an explanation of the progressive steps taken for establishing the system of Professional Examinations now in force. This system is now so firmly interwoven with the corporate life of the Institution, and will probably exercise such an important, if not predominating, influence on its future, that the narration may come in time to have some historical value, and will not, it is thought, be without present interest.

The earliest edition of the By-laws contains provisions for a Student class, and, as a matter of fact, the Institution has never been without Students; but as the advantages held out to them were not very apparent, it is not surprising that for the first three years two young gentlemen divided between them the comprehensive privilege of composing the

class. Seven years after the establishment of the Institution, the number of Students had mounted to 11, and two years later stood at 8. The following year (1881) the first instalment of the examination system came into operation, when the number of Students rose to 13, and in the following year to 21; while the last published list of Members contains the names of half a hundred Students, all of whom have qualified by examination for the class. These are eloquent figures, and may be left to speak for themselves.

The Institution was cautious in putting its hand to the important work of professional education, but it was recognized at a very early date in its history as a duty which would have to be undertaken. An allusion to the subject will be found in the Address delivered more than ten years ago, with which Mr. E. N. CLIFTON opened the first Session under his Presidency, and as the passage referred to was prophetic, it may be interesting to quote it. Mr. CLIFTON said :—

"Is there any reason why the class of Students should not become the principal source from which the ranks of Membership are recruited? I think not, and I venture to appeal to Members who have sons training to become Surveyors, and articled pupils whom they are fitting for future usefulness, to cause them to enrol their names in the Society's books. By associating in this way the rising generation of Surveyors with the Institution so closely identified with its professional interests, we shall gain the double advantage of placing the Society upon a true basis of permanency, and of establishing such a link between the present and the future of our calling as may enable us, at no very distant day, to provide means, by examinations or in some other way, for the educational ends which I hold to be one of the most useful functions of a Society such as ours."

The idea thus foreshadowed slumbered for some years, so

far as any official reference was concerned, but was revived by the late Mr. EDMUND JAMES SMITH, (who early foresaw the necessity for some action of the kind,) in the Address with which he opened the tenth Session of the Institution. Mr. SMITH looked upon a class of Students who did not study, and had no inducement to study, as an anomaly which could not endure, and in the Address referred to observed :—

"It may be a question deserving of consideration with reference to our future, whether the admission of Students to a higher grade should not be accompanied by some sort of examination, so that not only their respectability and character should be secured, but that some degree of guarantee should be given to the public that they are not unfitted for the work of protecting the interests entrusted to them. The nature and extent of this guarantee would require grave consideration, if the principle is entertained that, as in both divisions of the law, some test should be applied in the form of an examination."

Another two years elapsed, however, before matters appeared to be ripe for definite action. At the Annual Meeting of May 1880, the Council stated in their Report that in their opinion the time had arrived when steps might be taken, with prospects of success, towards establishing a system of professional education, and announced that a Scheme of Examinations was in course of preparation.

A Committee had, in fact, been appointed "to consider and report how the objects of the Institution can be best made available for the advancement of Students by examining them in professional knowledge." The first crude notion was "to take the Civil Service Examinations as the basis of the Student test, superadding as much or as many special or professional subjects as might appear to be necessary from time to time." It was further proposed to hold a

"Higher Examination for any Associates of the Institution desirous of qualifying as Members." The Committee, with what may now appear unnecessary caution, at first inclined to a limitation of any plan they might suggest to an experimental period of three years, but ultimately abandoned the limitation, and recommended for adoption the form of Preliminary Examination which at present exists.

The character which the proposed Technical Examination should assume was not so easily determined, nor was it for some time decided to what class of Candidates it ought to apply—whether to Students as a mere conclusion to their Student course, without reference to Membership of the Institution, or to Associates aspiring to the Membership. The Committee at length resolved to confine their immediate efforts to the preparation of a scheme of final, subsequently called "Proficiency," Examinations to mark the termination of the Student course.

Next came the task of so selecting and arranging the subjects as to make this technical examination applicable to pupils studying for the different branches of a singularly varied profession. It was obvious that a single group of subjects would be inapplicable to these various branches, although a few subjects were common to them all. In the end, the threefold sub-division into chiefly "Land Agency," chiefly "Valuation," and chiefly "Building," which now runs through the whole examination system, was adopted, and has been found to work without injustice to any class of Student.

In addition to the primary subjects distributed among these three sub-divisions, it was also felt that the Student should be required to take up two out of a list of 15 selected scientific subjects, all having more or less bearing on one or other of the above-mentioned branches of practice. These secondary subjects were introduced, not with the expectation that any high range of excellence would at first

be reached in them, but in order to put the stamp of a higher culture on the system, and with the indirect object of influencing the standard of the Student's school training. The details of the proposed examination for Surveyor-Associates was left to be developed as circumstances might seem to require, but was subsequently abandoned in the form first contemplated.

By the month of May 1880, the Committee had completed and forwarded their Report to the Council, by whom it was carefully considered and approved. A Special General Meeting was then convened to consider this first instalment of the scheme. The Meeting was held on July 3rd, 1880, with the result that the Council were empowered to carry it into immediate effect.

It was foreseen that a very mixed class of Candidates would probably offer themselves in the first instance for admission to Studentship. Each applicant was therefore required to fill up a form giving some account of his antecedents; this form to be signed by the Surveyor in whose office he was engaged. The effect was to weed out a good many doubtful Candidates, leaving those only who were in the regular way of training for the profession.

The first Preliminary Examination was held in the subsequent January, when thirteen Candidates presented themselves, and six passed. Among these Candidates were two who, had the Proficiency Examination been long deferred, would have ceased to be Students. In order to meet their case, and to put the new machinery to a practical test, it was determined to hold the first Proficiency Examination in the following April; and it may be interesting to mention that one of the Candidates who succeeded in passing that examination has, during the present month, passed the qualifying examination for the Fellowship. This gentleman has thus passed the ordeal of the whole series of examinations in the short space of two years and a

quarter, and will be eligible for the Fellowship as soon as he is qualified by age.

The second Preliminary Examination was held in January 1882, when 29 Candidates presented themselves, and in January last a third Preliminary Examination, at which there were 44 Candidates. It will thus be seen that the examinations are attracting a rapidly-increasing number of Candidates.

The Preliminary and Proficiency Examinations held in January and April 1881 tested (though on a limited scale) the working capabilities of the new system, and it was perceived that its existence would greatly support the application (then in contemplation) for a Charter of Incorporation. It subsequently transpired that the steps previously taken in the direction of professional education, coupled with the provisions in the draft Charter for a future system of compulsory examinations, greatly influenced the result of the application to the Privy Council.

It will be remembered that, under the provisions of the Charter by which the Institution is now bound, there will, after certain dates, be practically no admission to the class of Fellows or Professional Associates except by examination. These dates, however, were, in 1881, somewhat remote, and the question arose, in connection with the framing of the new By-laws under the Charter, whether the success of the examinations for Membership might not be imperilled by their postponement until the time when they became compulsory. The Proficiency Examinations not being actually linked to the Associateship, there was reason to suppose that a large number of young Surveyors, who would otherwise avail themselves of the two Student Examinations, would be deterred from doing so by the fact that, as matters stood, the road they were invited to tread began and ended outside the Institution. It was therefore resolved to anticipate in some measure the Qualify-

ing Examinations, imposed after certain dates by the Charter, by requiring all Students to pass the Proficiency Examination before proceeding to the Associateship, subject, of course, to subsequent election by ballot. This led to the consideration whether the advantage thus offered to Students should be withheld from older Candidates desiring to qualify for the Associateship, and the same consideration applied, *mutatis mutandis*, to persons desirous of proceeding to the Fellowship. After anxiously weighing the whole matter, the Council came to the determination of recommending the insertion in the new By-laws of provisions opening an access, by Voluntary Examination, to all classes of Membership, pending the time when the provisions of the Charter relating to the Compulsory Examinations came into operation. These arrangements being embodied in the new By-laws, steps were at once taken to give them effect by the expansion of the Students' Proficiency Examination into a system applicable to all classes; and it is testimony to the care with which the foundations of the system were laid that this expansion was effected without the necessity of modifying in any single particular the steps previously taken.

It may be stated here that it was thought desirable to offer special facilities in connection with the Proficiency Examination to Students who have previously obtained the Diploma or Certificate at the Agricultural Colleges of Cirencester and Downton, in Agriculture, Construction of Farm Buildings, Land Drainage, and Geology and Composition of Soils, by exempting them from examination in these subjects, a proportion of marks (necessarily the minimum) being allowed them in these subjects. Five of the Candidates who passed the recent Preliminary Examination are Students at Downton College, and can avail themselves of the exemption, unless moved by the larger ambition of achieving something better than the a bare pass in some of the most telling subjects.

Reverting to the general subject, provision had now to be made for five classes of examination.

A Preliminary Examination for Students, which may be taken leave of at this point.

An Examination for Students qualifying for the Associateship.

A similar, but slightly-enlarged, Voluntary Examination, for non-Students qualifying for the Associateship.

An Examination for either of the two latter classes, subsequently qualifying for the Fellowship, and

A direct Voluntary Examination for the Fellowship.*

The precautions taken to weed out undesirable Candidates from the Preliminary Examination were repeated in a very stringent form in connection with the higher Examinations. The proper time to arrest the career of any such Candidates is at its outset, since there would be a semblance of hardship in putting obstacles in the way of the election of a person who had passed the Examinations. The admission of non-Students to the Associates' Examination and non-Associates to the Fellowship Examination was therefore carefully guarded by requiring each Candidate to fill up a form setting forth his antecedents, education, professional training, and experience, past or present appointments, and any references he might be in a position to give. This form required the signatures of two Fellows or two Associates in the case of the Fellowship Examination, or of one Fellow in the case of the Associates' Examination, testifying from personal knowledge that the Candidate was worthy of election if successful in passing the Examination.

It was evident that it would be both inconvenient and

* A revised edition of the Syllabus, showing the exact range of the subjects comprised in the four Professional Divisions of the Examinations, will be published as an Appendix to the current Volume of the Transactions.

costly to hold a number of separate examinations during the year, and this gave rise to the idea of concurrent examinations, a unique and highly advantageous arrangement, which will be explained later on.

It was necessary to make the examination of non-Students for the Associateship slightly harder than the Students' Examination for the same class, in order to discourage any deliberate evasion of the Student course. A subject was accordingly added to the examination for non-Students, and although the marks allotted to the same subjects remained the same in both examinations, the maximum was raised, for the purpose of the non-Students' Examination, from 1,000 to 1,200, and the minimum from 500 to 700. Half the difference was put upon the extra subject required of the non-Student and half upon his special and scientific subjects. This simplifies the arrangements, by enabling the same number of marks to be put upon the same subjects in both examinations, but the effect is to require the attainment of a higher number of marks by the non-Student in all his subjects, which is what was designed, and the result appears in the average of marks earned by non-Student Candidates for the Associateship.

The direct Examination (Division V.) for the Fellowship was purposely made almost prohibitory (to discourage evasion of the Associate Examination) by requiring of Candidates the attainment of the same pass number of marks as in the examinations in Divisions III. and IV. combined.

It will be remembered that each of the four classes of technical examination just enumerated had to be subdivided under the three heads of Land Agency, Valuation, and Building.* Provision had, therefore, to be made for 12 examinations in all, and there was an obvious advantage in

* The scope of these Examinations will be seen by a reference to Table E in the Appendix to this Statement.

holding the examinations in all similar subjects concurrently in all the Divisions.

The system of concurrent examinations may be thus explained: Taking the four Land-Agency Examinations as an example. There will be four sets of Land Agency Candidates. The Candidates in Division II. get the same papers as those in Division III., and at the same hour, so far as they go, but the latter get an additional paper at the end of their examination. Similarly, the Land-Agency Candidates in Division V. get the same papers as the Land-Agency Candidates in Divisions II. & III., so far as they are common, and in addition, and simultaneously with the Land-Agency Candidates in Division IV., the papers taken by the Candidates in the latter division. It is obvious that the examination, in the same papers, of Candidates of different ages and different degrees of experience, involves a very careful setting of the papers, both with reference to the number and the difficulty of the questions. Each paper has to be so set as to comprise questions not too difficult to enable the younger Candidates to earn sufficient marks in them to pass; and other and more difficult questions (generally involving points of practice), which the Students are not required to answer, but are not precluded from answering if they can do so, the two classes of questions being carefully distinguished in a head-note to each paper.

A paper common to the same section in the four examinations, carries the same number of marks in each division; but as the pass number to be earned in the same paper rises according to the division in which the Candidate is being examined, he is bound to answer a larger number of questions in order to earn the number of marks necessary in his case, and as the maximum marks are distributed among the questions according to relative difficulty,

the Candidate in any particular class cannot escape attempting to answer those questions which were specially designed for him, if he wishes to pass.

Considering that every Surveyor is pretty sure to become more or less a specialist in some subject, it is not considered desirable that failure in any one subject should prejudice a Candidate's chance of passing, if he can make up the deficiency in other subjects; the only restriction being that Candidates for the Associateship are bound to get a certain proportion of marks in the strictly professional subjects as a whole. The subjects of examination in Division IV., (qualifying Associates for the Fellowship,) and the same subjects which form a portion of the direct examination for the Fellowship, have been selected as involving the practical experience which cannot be expected of the younger men.

An analysis of the marks awarded in the recent examinations furnishes some instructive results. The maximum attainable marks in Division II. were 1,000; in Division III., 1,200; in Division IV., 1,000; and in Division V., 2,000. Multiplying these maxima by the total number of Candidates in the classes to which they respectively apply, and adding the results together gives a total of 30,000 attainable marks. The proportion of these marks collectively earned by the Candidates may, considering the searching character of the examination, fairly be called remarkable. This proportion amounts to 20,216, or more than two-thirds of the marks attainable by all the Candidates in all the subjects.

Distributing the 20,216 marks awarded among the several classes of Candidates, the following results appear:—

		Marks	out of a possible
13 Student Candidates for Associateship	earned	8,762	13,000
5 non-Student " "	"	3,636	6,000
1 Qualified Associate for the Fellowship	"	589	1,000
5 Candidates for the Fellowship	"	7,229	10,000
24		20,216	30,000

Confining ourselves to the two classes of Candidates for the Associateship, and adding together the marks earned by Student and non-Student Candidates in these classes, we get a total of 12,398 marks earned out of a possible 19,000, or an average of 689 marks per Candidate out of an average maximum of 1,056 attainable marks per Candidate. Out of the gross total of 12,398 marks earned by Student and non-Student Candidates for the Associateship, 10,696 marks were obtained in the compulsory subjects, and 1,702 marks in the special and scientific subjects, showing that the scientific subjects have been made, as they should be, quite ancillary to the strictly professional subjects. The highest number of marks earned by any Student Candidate for the Associateship was 794 out of 1,000 or 79% of the attainable marks; the lowest 558 or 56%. The highest marks earned by any non-Student Candidate for the Associateship were 945 out of 1,200 or 79% of the attainable marks; the lowest by any successful non-Student Candidate 710 or 59%. The qualified Associate Candidate for the Fellowship obtained 589 marks out of 1,000 or 59%. The highest number of marks earned by any Candidate in the direct Examination for the Fellowship (Division V.) was 1,609 out of 2,000 or 80%; the lowest 1,299 or 65% of the attainable marks.

All the foregoing Candidates and all future Candidates successful in passing the Professional Examinations will be indicated by an asterisk prefixed to their names in the list of Members.

It is not desired to attach too much importance to the legal element of the examinations, and with this object these subjects are marked uniformly lower than the professional subjects, and are as far as possible grouped together in one or two papers, as will be seen on referring to the time table.

The relation of the scientific and the legal elements of

the examination to what, for want of a better term, has been called the professional subjects, is a matter of the very highest importance, and great care has been taken to preserve a proper proportion between these various components. It will be instructive, therefore, combining the two groups of Candidates for the Associateship, to separate the marks awarded in respect of legal subjects from the total of 10,696 marks left after deducting the special and scientific subjects from the gross total of 12,398 marks earned in the two branches of the Associates' Examination. These deductions from the gross total leave 6,980 marks earned in respect of the professional subjects; or 388 marks per Candidate in the professional subjects, as compared with 594 per Candidate in the professional and legal subjects combined. The proportion borne by the legal subjects is somewhat striking, but the comparison is, in point of fact, illusory. That the proportion of marks earned in the legal subjects is high is undeniable, but a comparison of the maximum marks assigned to the legal as distinguished from the professional subjects shows that the disproportion does not arise from from any undue importance given to legal subjects in the scheme of examinations, but from another cause.

Thus, of 3,000 maximum marks assigned to the whole of the subjects in the three sub-divisions of Division II., 450 are assigned to the special subjects, 750 to the legal subjects, and 1,800 to the professional subjects. Similarly, out of 3,600 maximum marks assigned to the whole of the subjects in the three sub-divisions of Division III., 750 are assigned to the special subjects, 750 to the legal subjects, and 2,100 to the professional subjects. Or, putting the two sets of figures together, out of 6,600 maximum marks for the two examinations for the Associateship, 1,200 were apportioned on the scientific subjects, 1,500 on the legal subjects, and 3,900 on the professional subjects. These

figures are in the proportion of 18 per cent. for the scientific, 23 per cent. for the legal, and 59 per cent. for the professional subjects. The large number of marks gained in legal subjects is not difficult to account for. For some reason (probably the predominance of book-subjects in the section) the Valuation Section of the Examinations attracted by far the larger number of Candidates; and as legal subjects enter largely, and rightly so, into the composition of this branch of the examinations, it follows that a very large number of marks were earned in them. Distributing the 3,716 marks earned in legal subjects among the sub-divisions in which they were earned, it is found that the large proportion of 2,935 were earned by the Valuation Candidates, 615 by the Building Candidates, and 166 by the Land-Agency Candidates.

It is probable that the addition of another practical subject to the Valuation Section would, by rendering it less attractive, tend to equalize, if that be desirable, the number of Candidates who select it with the number who select other sections, and, as a consequence, bring the total number of marks earned in legal subjects into closer correspondence with the relative importance actually given to these subjects in the scheme of examinations.

The five Candidates in the direct Examination for the Fellowship (one of the Candidates retired at the end of the fourth day) obtained, as previously stated, 7,229 marks out of a possible 10,000—an average of 1,446 marks per Candidate, the minimum pass number being 1,200. It is necessary, in considering this result, to bear in mind that the examination was intended to be prohibitory, both as regards its duration and the difficulty and number of the subjects. The examination of the Fellowship Candidates lasted 30½ working hours in the Land-Agency Section, 20 hours in the Valuation Section, and 32 hours in the Building Section; the

difference in the number of hours in the Valuation, as compared with the other two Sections, being due to the absence of drawing work in that section.

Experience of the recent examinations tends to show that the number of special and scientific subjects is too large, and might with advantage be reduced so as to leave two subjects appropriate to each section. It is also worth considering whether the whole body of scientific and special subjects might not be transferred to Division IV.; Divisions II. and III. appearing to be slightly overweighted, while Division IV. is decidedly underweighted. Very few of the younger men exhibit more than a smattering of knowledge in these subjects, whereas a much fuller and more exact acquaintance with them might be reasonably expected of older men.

A brief description of the method of conducting the examination in some of the more practical subjects may not be without interest. The foremost place among these subjects is given to the Land Surveying and Levelling Examination, which all Student and non-Student Candidates for the Associateship are required to undergo. As a preliminary, all the Candidates are required to send in, a fortnight before the examination, a carefully-drawn set of plans and sections, prepared in conformity with certain conditions previously announced. The field-books and level-books are also sent in at the same time, the object being to discover whether the Candidate has done the work himself, by subsequently calling upon him to re-plot a portion of it for comparison with the plans previously sent in. It is only fair to say that all the work stood this rather trying test. Some of the best of these plans and drawings have been placed on the walls for the inspection of the Meeting.

On the first day of the examinations the two classes of candidates (18 in number) for the Associateship were taken

to a Common, near Willesden, where a level line of about 20 chains, over undulating ground, had been previously staked out in chain lengths to save measuring. The Candidates were started at intervals from the same point, and, after levelling along the line staked out, were required to level round through certain outlying points, and close on the starting-point. The Candidates were timed, marks being awarded for rapidity as well as for exactness. One of the Examiners then levelled over the same ground, to test the accuracy of the sections when plotted the next day. A second day was devoted to the indoor examination in the surveying subjects. Each Candidate was supplied with a lithographed plan and required to draw on it suitable construction lines for a survey with the chain only, and was also required to compute with the scale only, and with the computing scale and paper, certain enclosures on the same plan. The Candidates were further required to furnish written answers to a number of questions, and in conclusion were practically examined in the use and adjustment of instruments. The Candidates in the Building Section were, of course, exempted from this latter feature of the examination.

A practical examination also took place in connection with the subject, "Timber Measuring and Valuing," in the Fellowship Examination. This examination was conducted by two Fellows of the Institution, one of them a Member of the Council. The Candidates were taken to an enclosure in Richmond Park, where 20 trees of different varieties had been previously selected and numbered. They were required to name, measure, and value the trees, and to point out any obvious defects, entering their notes upon forms provided for the purpose.

The examination in Land Drainage was conducted by requiring each Candidate to sketch on a plan, specially prepared for the purpose, the best line for a new outfall

drain, through a district indicated, to gain the requisite fall for underdraining it effectually, the ordinary level of the water in a brook adjoining the district being, as shown upon the plan, too high for that purpose. Candidates were also required to answer a number of detail questions and to sketch on one of the fields on the plan the position of the main drain, or drains, and the direction of the minor drains. It may be mentioned that the plan used is part of a very much larger plan, different sections of which will be taken year by year, and which may be varied almost indefinitely by altering the figures representing the surface levels.

The examination in the subject, "Metropolitan Buildings Acts," was conducted by furnishing each Candidate with a tracing of the ground plan and section of a dwelling-house, into which were crowded a variety of details representing violations or evasions of the Building Act, and which he was required to detect and remedy. The plan was accompanied by a paper of questions bearing on the same subject.

The Candidates in the direct Examination for the Fellowship were required to write reports, as to a client, on a set of facts placed before them without previous announcement. The subjects of these reports differed, of course, according to the section in which the Candidate offered himself for examination. The object of them was to test the Candidate's quickness and self-possession, and his ability to explain himself logically and clearly. The Candidates in this branch of the Examinations being persons of mature years, prominence was given to its most practical features. With this object the comparatively large number of 350 out of the 2,000 maximum marks was put upon the reports.

A few general statistics may be interesting by way of conclusion. Including the special and scientific subjects,

there were 45 subjects taken in the whole series of examinations. The number is, no doubt, considerable, but it should be remembered that no one Candidate takes up more than 12 subjects, and that the largeness of the total number is due, to some extent, to the considerable choice of scientific subjects and, to a still larger extent, to the fact that the examinations apply to three branches of practice possessing very few features in common. The 45 papers were set by 24 Examiners, of whom 9 were Members of the Council. The number of separate questions set amounted to 356, and the number of answers dealt with to close upon 2,000, involving a very large amount of labour, nearly the whole of it gratuitous.

In order to show the degree to which outside attention has been directed to the examinations, it may be stated that, during the 12 months, upwards of 800 letters on the subject have been received and answered. An impression may exist that the examination system is unnecessarily intricate. This appearance is due to the necessity of making simultaneous provision for a transitional as well as a permanent state of things. Two out of the four examinations being merely provisional will ultimately disappear—those in Divisions III. and V. The only access to the Associateship will then be through Division II., and the only access to the Fellowship through the examination now known as Division IV. The scheme will thus be reduced to very simple proportions, and no one will be in a position to complain that his convenience has not been duly consulted in the intermediate arrangements made by the Council to save any case of individual hardship.

The effect of these intermediate arrangements will probably be to introduce a large number of Members by voluntary examination before the compulsory provisions of the

Charter come into force, and the Institution will thus pass imperceptibly out of the old into the new system, avoiding the shock which would have followed a sudden alteration of the basis of Membership.

It is not pretended that the Examination system is faultless. Minor defects will, no doubt, from time to time reveal themselves, but the system will bear comparison with anything of the kind in existence, and there is every reason to believe that it will satisfactorily fulfil the purposes for which it was designed.

Mr. A. Vernon (Fellow) as one who had experienced at the hands of The Secretary the unfailing skill, care, and courtesy with which the examination had been conducted, had much pleasure in availing himself of the opportunity of moving the vote of thanks for the Paper just read, which struck him as a very able and valuable record of the history, character, and results of the examinations. It was, he thought, almost impossible to appreciate too highly the labour that had marked the development of the examination system, and the unremitting attention that had been given to the matter by the gentleman who had read the Paper.

He (Mr. Vernon) stood in the peculiar position of being an old Fellow of the Institution, and of having recently passed one of the examinations which the Council in their wisdom had instituted as a qualification for Fellowship.

He viewed with great interest the introduction of these examinations. The formation of the Institution had supplied a want widely felt by all classes of Surveyors; but, although well established and very successful, its future career should be one of still greater usefulness, and he felt that to insure stability the main thing needed was something like a well recognised test or standard of pro-

fessional attainments as a preliminary to admission to Membership.

It was not given to everybody to appear before Her Majesty's courts or in arbitration cases, and give evidence that would carry undoubted weight, but he would venture to say that the day would come when the Membership of this Institution would add value to a witness's evidence, and ensure him a respectful hearing in any court or case.

He had entered for the recent examination because he felt that the Institution deserved it of some of their Fellows. He had a pupil in his office who had passed the Students' Examination, and assistants who contemplated coming up for the higher examinations; and, he thought the best way to encourage them was to enter for the Fellowship Examination himself. Many would, no doubt, be prevented by want of time and other causes from availing themselves of the opportunity now offered them, but, where no such obstacles existed, he hoped that Members would not hesitate to show their approval of the examinations by attacking them as he had done.

He should like to add that amongst many other excellent arrangements, the identity of the Candidates was carefully concealed, and he did not think that any one need fear their failure (if they were so unfortunate as to fail) becoming known. With reference to the Papers of Questions he should like to bear his testimony to their general fairness and excellence, though in one or two cases he felt vindictive, it was true, and wished that, like the clever author of "Vice Versa," he could reverse the relative positions of himself and the examiners.

Just such questions were set as thoroughly tested the breadth of a Candidate's knowledge. The Paper on the Law of Fixtures and Dilapidations was especially wide and

searching, as were the Papers on "Estimation of Quantities and Modes of Pricing Work," though quite sufficiently difficult. He should like to add (and it was the opinion of many others besides himself) that the introduction of these Examinations would tend to accelerate the progress and confirm the status of this important Institution. He begged, in conclusion, to move the vote of thanks to THE SECRETARY for his excellent and able Paper.

THE SECRETARY said that as the concealment of the identity of the Candidates was no longer necessary, he might mention, for the information of the Meeting, that it was the gentleman who had just spoken who passed the Fellowship Examination with the large number of 1,609 marks out of a possible 2,000.

Mr. W. E. HORNE (Fellow) had much pleasure in seconding the vote of thanks. He had been successful in passing the recent Fellowship Examination, and he felt that he and the other Candidates were under great obligations to THE SECRETARY for his courtesy and kindness, not only during the time of the examinations, but, in many instances, for many months beforehand, in connection with their preparatory studies.

Had the examination meant mere cramming in branches of knowledge learned only to be forgotten, he would have hesitated to go in for it, but when he found, on the contrary, that it was eminently practical, and that a fuller acquaintance with the subjects comprised in it would assist him greatly in his business, he at once determined to undergo it, and felt great advantage from having done so.

Mr. F. K. Munton (Associate) said that as the principle of examinations was one of considerable interest to the legal profession, he might perhaps be justified in offering a few remarks on the admirable summary presented to the Meeting by Mr. Rogers. It not only afforded Students an opportunity of anticipating the true bearings of the position, but it enabled everybody to consider and advise what improvements could be made, and he should certainly endeavour to persuade the Secretary of the Incorporated Law Society to read a Paper on the same model. But the discussion had a far greater interest to him, for, as a busy solicitor, he now and again had occasion to consult, without loss of time, Surveyors and auctioneers outside the metropolis, and he had been much embarrassed in making a selection from numerous self-styled people, possessing not the slightest qualification, and any system by which reliable diplomas could be awarded would be hailed with satisfaction. In London there were, of course, many first-class men whose names were guarantees of competency and fair dealing, but in outlying districts it was nothing short of a scandal to an honourable profession that the title of Surveyor could be so easily assumed. This Institution had supplied a great want, and its operations were gradually providing a remedy for the state of things to which he had referred.

The President explained, with reference to Mr. Munton's remarks, that, under the new By-laws, every Professional Member of the Institution would hold a diploma. Those documents were now in course of preparation and would be issued very shortly. The time was not very distant when (unless under very exceptional circumstances) no one would obtain the diploma except by examination.

Mr. P. D. Tuckett (Fellow), referring to Mr. Vernon,

observed that it was a very noteworthy fact that a gentleman who had long been in practice, who was a justice of the peace, and had enjoyed the highest municipal honours of his native town, should have set such a spirited example in offering himself for examination.

Mr. G. H. Leane (Fellow) said that having taken a part in one of the practical branches of the recent examinations, he might perhaps be allowed to offer one or two suggestions which occurred to him. It struck him as desirable that, in addition to the general examination, there should be special examinations in certain subjects, carrying certificates of competency (not the diploma) in respect of those subjects. It often happened that a man's practice became specialised in some one direction. Of course, where such a certificate was given, the examination in respect of it should be most searching and exhaustive; but there were persons to whom a special certificate of the kind would really be a greater advantage than the diploma given for a more general examination.

It was also worth considering whether it might not be well to strengthen the Education Committee, (which had, he understood, the control of the examinations) by making it a mixed Committee, and not wholly composed, as at present, of Members of the Council. The Committee had performed their work most admirably, but it would rapidly grow upon their hands, and it seemed to him that it would lighten their labours and help to perpetuate sound traditions if there were added to it, from time to time, gentlemen who passed the Fellows' Examination with special distinction.

Mr. D. Watney (Fellow) considered that there was no more satisfactory proof of the success of the Institution than the increasing number of Students. The time would come

when the higher ranks of the Institution would be recruited almost entirely from the ranks of those who had been Students. The increase in the number of Students was therefore vital to the future growth of the Institution.

Adverting to the Paper, he considered that great credit was due to Mr. ROGERS for the way in which the examination system had been worked out. The Council had, one and all, taken great interest in the subject, and had given it very anxious consideration, but to Mr. ROGERS was due the credit of working it out and bringing it to the successful conclusion, the evidence of which was before the meeting.

To another gentleman, connected with the Council, special gratitude was due from the Members. He referred to Mr. MEADOWS WHITE. Every one who knew Mr. MEADOWS WHITE was aware how thoroughly he did whatever he undertook, and would not be surprised, therefore, to hear that he had thrown himself heart and soul into those examinations, conducting the whole of the legal part of them, with the exception of two subjects kindly undertaken by Mr. LUMLEY SMITH, Q.C., and another subject by Mr. W. H. MICHAEL, Q.C. The looking through such an immense number of examination papers must be, as every one would feel, a very severe tax upon the time of a barrister in active practice, and it was difficult to find terms adequate to the acknowledgment of the services rendered by the gentlemen he had referred to. The mention of their names would show that the Institution had been favoured with the assistance of some of the most eminent men in the legal profession in conducting the examinations.

He might be permitted to add a word of advice to the younger men who passed the recent examination. He hoped and trusted they would not rest content with the

results they had already achieved, but would do their best to keep up and enlarge their knowledge. Many of the subjects with which they would be concerned in their future career could never be thoroughly known, and must be continuously studied if they hoped to keep pace with the times.

Professor W. Fream (Visitor) said that although not a Member of the Institution, he felt that he was not wholly unconnected with it, for when he looked down the long list of Fellows and Associates he found the names of many gentlemen in whose technical education he had taken part during the seven or eight years that he had been on the staff at Cirencester or Downton.

For some time past he had watched with gratification the growth of the examination system of the Institution, feeling the importance of its bearing on the agricultural colleges. One-third of the students at these colleges being under training with a view to becoming land agents and Surveyors, it was an advantage to them to have independent tribunals by which the results of their teaching could be satisfactorily tested.

The scheme, as a whole, was so admirable that it was difficult to fix upon a part for criticism. It struck him, however, that it had a tendency to run into subjects of a purely scientific character, such as hydrostatics or higher trigonometry. But while disposed to question the advisability of introducing higher mathematics into the scheme of examination, he did not undervalue their importance as a subject of school training. Without such a training, his experience went to show that a student was at an extreme disadvantage in mastering many practical subjects, and he found that at some of the best public schools very little effort was made (or, if made, was not very successful) to

thoroughly ground boys in the lower branches of mathematics, which were, perhaps, of more value to Surveyors than to the members of any other profession. He was inclined to agree with the suggestion in the Paper that these purely scientific subjects, if retained, should be bodily transported into the higher examinations, to which they seemed rather more akin.

If he might venture to say so, he felt glad that the Examination scheme had reached its present stage of development, as it made it practically impossible to hark back to the old condition of things. The first step had, in his opinion, been taken towards making the Surveyors' a real profession, which, in this country, it had not yet been, except in a limited sense. It would not be regarded as an invidious observation that there was as much room for empiricism in the Surveyors' as in any other profession, and he thought the Institution should have, and now had, the means of determining and showing to the world whether or not its Members were properly qualified. He believed that the certificate of the Institution would soon come to be looked upon as a *sine qua non* in any branch of practice, and he strongly advised all young men proposing to adopt land agency as their profession to enter for these examinations, being convinced that before very long they would find themselves at a serious disadvantage unless they possessed the diploma of the Institution.

Many who were acting as land agents were so ill-qualified for their position that it was high time the whole subject should be overhauled, alike in the interests of the rising generation and of the public whom they would be called upon to serve. He had listened with great pleasure to the excellent Paper that had been read, and it

convinced him more than ever that the step taken by the Institution in establishing these Examinations would redound to their credit, and that a future generation would feel grateful to those, whoever they might be, on whose shoulders the labour of working out the Examinations had fallen.

Mr. W. E. Grigsby (Visitor) had studied the scheme of Examinations under discussion, and did not agree with the previous speaker that any undue prominence had been given in it to theoretical as compared with practical work. It seemed to him that the Surveyor's occupation was very closely allied with applied mathematics and with scientific knowledge. He was also pleased to see that legal subjects fell within the scope of the examinations. The connection between law and surveying was greater than was commonly supposed. A Surveyor who knew nothing of law was, in his opinion, as ill-informed as a barrister or solicitor who had no acquaintance with surveying. Indeed, the one thing with which he did not agree in the admirable Paper which had been read by The Secretary was his statement that too much attention ought not to be paid to legal questions. He (Mr. Grigsby) had, he supposed, a professional bias, but he thought that great importance had very properly been given to legal subjects in the scheme, and he hoped it would be felt that the more the Surveyor knew of law and science the higher would he rank in the professional world.

The Secretary, having expressed his acknowledgments of the kind references made by several of the speakers, disclaimed any credit for having performed, to the best of his ability, work which fell within the sphere of his official duties, and in which he had always taken the deepest

interest. Nothing had arisen in the course of the discussion affecting anything contained in the Paper, but one or two observations had been made with reference to points in the education scheme itself. He did not think it was quite the case that prominence had been given to legal subjects. It was not possible, and, if possible, not desirable to exclude them altogether from the scheme, but, as he endeavoured to show by an analysis of the marks, great pains had been taken to subordinate them to more strictly professional subjects. So far from enlarging the proportion of marks assigned to legal subjects, as one of the speakers seemed to think desirable, the Council would, he thought, incline the other way in any change they might think it necessary to make. Some acquaintance with law was of considerable value to the Surveyor, but anything beyond an elementary knowledge was quite outside the scope and spirit of the scheme.

The remarks of Professor FREAM had, he thought, been a little misunderstood by a subsequent speaker. What Professor FREAM intended to convey and did convey, to his mind, was that abstract mathematical science was somewhat inappropriate to the education of the Surveyor, and that what was wanted was a better grounding at school in the more practical branches of mathematics. The desirability of retaining these higher mathematics among the subjects of examination was a matter in which opinions would differ, but there could be no doubt as to the truth of the allegation that far too little attention was paid to mathematical training in the great majority of schools, as any one with experience of the Preliminary Examinations would at once agree. A considerable number of the Candidates owed their failure in the Students' Entrance Examinations to

ignorance of elementary mathematics, while many who passed gained a large proportion of their marks in subjects like Constitutional History, showing how little their school training had been shaped with reference to their future pursuits. He begged again to thank the Meeting for their kind reception of his Paper.

THE PRESIDENT hoped and believed that the evening's discussion would not be without beneficial results on the future of the Institution.

Since Mr. MEADOWS WHITE's name had been mentioned, he might observe that he had received a letter from that gentleman regretting his inability to be present, and expressing his satisfaction at the results of that branch of the examination which had come more immediately under his own observation, and his surprise at the unexpectedly high standard reached by many of the Candidates.

One of the speakers (Mr. VERNON) referred to the desirability of fixing a definite standard of examination. No doubt it would be an advantage to have a standard of the kind if it could be arrived at in any way. He feared, however, that it was impossible, and the only thing to do was to leave it to the good sense of those who acted as Examiners from time to time. Certainly it was not desirable to fix a standard beyond which they should never go, as the Surveyor of the future might require a very much higher degree of scientific and technical knowledge than he needed at the present day.

With reference to the remarks of Professor FREAM, he might observe that he had always advised every young Surveyor to make himself thoroughly acquainted with trigonometry and applied mathematics.

He thought the Paper had quite answered its purpose, and trusted it would be the means of calling attention to the Examinations.

The vote of thanks having been put and carried unanimously, the Meeting then adjourned.

These Rules of Examination are issued subject to modification as circumstances may require, due notice of any changes being given to Candidates whose names are on the Examination Lists.

The Surveyors' Institution.

EXAMINATIONS.

GENERAL.

The Examinations are classified under five Divisions.

DIVISION I.—The PRELIMINARY EXAMINATION for admission of Students.

PROFESSIONAL EXAMINATIONS.*

DIVISION II.—The STUDENTS' PROFICIENCY EXAMINATION, qualifying Students for the CLASS OF PROFESSIONAL ASSOCIATES.

DIVISION III.—The VOLUNTARY EXAMINATION for Candidates (other than Students) desirous of qualifying for the CLASS OF PROFESSIONAL ASSOCIATES.

DIVISION IV.—The VOLUNTARY EXAMINATION for PROFESSIONAL ASSOCIATES desirous of qualifying for the FELLOWSHIP.

DIVISION V.—The VOLUNTARY EXAMINATION for Candidates (other than Professional Associates) desirous of qualifying for the FELLOWSHIP.

* [NOTE.]—The range of the various Professional Examinations will be seen on referring to Table E.

The Examinations in Divisions I. and II. are for Students only.

The Examination in Division III. is at present voluntary; but will shortly become compulsory for all Candidates (other than Students) for the Class of Professional Associates.

The Examination in Divisions IV. and V. is designed to enable Candidates (whether in practice or not on their own account) to qualify for the Fellowship.

DIVISION I.

Preliminary Examination for the Admission of Students.

Any person eligible under the By-Laws,* being desirous of becoming a Student of the Institution, will be required to undergo a Preliminary Examination, with the view of

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EXTRACTS FROM BY-LAWS.

* Students shall be persons not under eighteen years of age, who are or have been pupils of Surveyors, or, who are studying, with a view to entering the Profession, at such places of professional instruction as the Council may approve, and such persons may continue Students until they attain the age of twenty-one years and six months.

Students are admitted by the Council; but no person shall be deemed eligible for admission as a Student unless he shall have passed the Examination declared in the Rules of Examination to appertain to the admission of Students, or have passed some other Examination which the Council may declare in the Rules of Examination to be equivalent thereto, and unless he shall satisfy such other requirements as the Council shall from time to time prescribe as applying to Students.

testing his general knowledge and educational acquirements.* The subjects of Examination are as follows:—

Subjects.

Elements of Algebra, including Simple Equations.

Euclid—the first three Books.

English History.

Composition and Writing from Dictation.

Some acquaintance with one of the three languages, Latin, French, or German, is also required.

Those successful in passing the Examination receive a Certificate to that effect, and are enrolled as Students of the Institution.

Date of Examination.

The Examination is held in the month of January in each year. *Applicants must send in their names for approval by the Council, on forms supplied for the purpose, before the end of the preceding month of November.*

Marks.

The Candidate passing with the highest number of marks in his year is exempted from the payment of Fees during the term of his Studentship.

The maximum number of marks in Division I. (Students' Preliminary) is 500. The minimum number of marks to qualify the Pupil for a Certificate as a Student is 300.

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* *Persons desirous of becoming Students who can produce a Certificate of having passed the Matriculation Examination of the University of Oxford, Cambridge, London, or any other University in the United Kingdom, or who have passed with honours the Senior Local Examination of the University of Oxford or Cambridge, will be exempted from this Examination.*

PROFESSIONAL EXAMINATIONS.

DIVISION II.

STUDENTS' PROFICIENCY EXAMINATION.

(Qualifying for the Class of Professional Associates.)

A Students' Proficiency Examination* will be held annually in the month of April. The Student will be expected to present himself at the Examination next preceding the expiration of the term of his Studentship (see foot-note, page 2), provided the unexpired term, counting from the date of such Examination, be not greater than six months. Should the unexpired term be greater than six months, the period during which the Student is eligible for the Examination will be extended to the date of the Examination next following his attainment of the age of twenty-one years and six months, and notwithstanding the fact that he thereby ceases to be attached to the Institution as a Student, the Council will, as far as possible, continue to accord to him, up to the date of such Examination, the privileges enjoyed by Students.

Where a Proficiency Examination falls within six months of the end of the term of Studentship.

Where more than six months of the Studentship are unexpired at the date of the Proficiency Examination next preceding the end of the term of Studentship.

A Student who attains the age of twenty-one years and six months before the date of the Proficiency Examination next following his enrolment, and thereby ceases to be a Student of the Institution, may, nevertheless, enter his name for such Examination, and, notwithstanding the fact that he will cease to be attached to the Institution as a Student, the Council will, as far as possible, continue to accord to him up to the date of such Examination the privileges enjoyed by Students.

Where the applicant at the time of his admission is so nearly twenty-one and a half years old, that no Proficiency Examination occurs until after the end of his term of Studentship.

*[NOTE.]—The passing of this Examination is equivalent (*see* Table E) to passing in the first group of subjects of the Fellows' Examination.

DIVISION II.

STUDENTS' PROFICIENCY EXAMINATION, QUALIFYING FOR THE CLASS OF PROFESSIONAL ASSOCIATES.

SUB-DIVISION I.—Chiefly Land Agency.

† Compulsory Subjects.

1 Land Surveying and Levelling and Elements of Trigonometry.
2 Book-keeping.
3 Construction and Use of Valuation Tables.
4 Law of Landlord and Tenant — Elements of; bearing on the Practice of the Land Agent.
5 Agriculture.
6 Construction of Farm Buildings.
7 Forestry, — Or Timber Measuring, at the option of the Candidate.
8 Land Drainage.
9 Geology and Composition of Soils.

SUB-DIVISION II.—Chiefly Valuation.

† Compulsory Subjects.

1 Land Surveying and Levelling and Elements of Trigonometry.
2 Book-keeping.
3 Construction and Use of Valuation Tables.
4 Law of Landlord and Tenant (Elements of).
5 Enfranchisement of Copyholds.
6 Law of Fixtures,
7 Law of Dilapidations,
8 Agricultural Law,
9 Law of Easements and Riparian Rights,
— Elements of; bearing on the Practice of Land Valuation.

SUB-DIVISION III.—Chiefly Building.

† Compulsory Subjects.

1 Land Surveying and Levelling and Elements of Trigonometry.
2 Book-keeping.
3 Construction and Use of Valuation Tables.
4 Modes of Pricing Work.
5 Estimation of Quantities and Measurement of Artificer's Work.
6 Constructive and Working Drawings.
7 Law of Fixtures,
8 Law of Dilapidations,
9 Law of Easement, Light and Air,
— Elements of; bearing on the Construction and Survey of Buildings and Management of House Property.

The Student may elect to be examined in either of the above Sub-Divisions.

SCIENTIFIC AND SPECIAL.

(TWO AT LEAST OF THE FOLLOWING SUBJECTS (AT THE OPTION OF THE STUDENT) MUST ALSO BE TAKEN IN EACH OF THE THREE SUB-DIVISIONS.

Agricultural Chemistry.
Algebra.
Botany.
Composition and Properties of Stones and Cements.
Hydrostatics, Elements of.
Mechanics (Law of Forces).
Metallurgy (Physical Properties of Metals).
Meteorology, Principles of.
Metropolitan Buildings Acts.
Mineralogy (Form and Physical Properties).
Natural History.
Principles of Parochial Assessment.
Road Making.
Sanitary Science.
Trigonometry (Higher).

No Student will be held to have passed the Examination who has not obtained an aggregate of 500 Marks, of which at least 400 must be obtained in the nine "compulsory subjects" of the Sub-Division which the Student elects to be examined in.

NOTE.—A Syllabus showing the exact range of each Subject can be obtained on application

It will not, however, be open to anyone who has passed the age of twenty-one years and six months to compete at a Proficiency Examination for any of the Scholarships and Prizes open to Students only, nor will he in this case be exempted from the payment of fees under the conditions referred to on page 3.

Disabilities of those over twenty-one and a half years of age as regards competition for Prizes, &c.

Students may elect to be examined under any one of the three Sub-Divisions of Table A,* which has been arranged on the broad lines of the usual branches of Surveyors' practice; but notice must be given of the Sub-Division and of the Scientific and Special subjects (Table A), and the alternative subject (7) if in Sub-Division I., in which the Student elects to be examined, not later than the last week of the month of November, preceding the Examination, for which he is declared eligible; and the sum of Three Guineas must be deposited with the Secretary by such Student before his name is entered on the Examination List, as an earnest of his intention to offer himself for Examination on the days appointed. Should the Student fail to attend on the days of Examination, the money so deposited will be forfeited, and his name will be removed from the List. Otherwise, the amount will be refunded after the Examination.

Notice of Candidature.

Deposit.

Marks.

The maximum number of marks in each of the Sub-Divisions 1, 2, and 3 is 1,000. The pass number of marks in this Examination is 500, of which at least 400 marks must be obtained in the nine "compulsory subjects" of the Sub-Division selected.

Date of Examination.

The Examinations under Sub-Divisions 1 and 2 will be

* Candidates in the Land Agency Sub-Division of Table A, who can produce Diplomas or Certificates of Proficiency in respect of any of the Subjects 5, 6, 8, and 9, from the Royal Agricultural College, Cirencester, or the College of Agriculture, Downton, will be exempted from Examination in such subjects, proportionate marks being allowed them.

held concurrently on three consecutive days, commencing with the first Tuesday in the month of April. A fourth day will be devoted to practical work in the field, and a fifth to plotting and drawing the field-work under the superintendence of one of the Examiners.

The Examination under Sub-Division 3, so far as relates to the first three subjects under the Sub-Division, will be held concurrently with those under Sub-Divisions 1 and 2. The other subjects under Sub-Division 3, will be taken during the Tuesday, Wednesday, and Thursday of the week following.

Scholarships and Prizes.

The Institution will give a Prize of £25, to be called "The Institution Prize," to the Student who obtains the greatest number of marks, over 500, in the Proficiency Examination, in Sub-Divisions I., II., or III.

The Institution Scholar.

To signalize conspicuous merit, a Medal and the title of "Institution Scholar" will be given to the Student who obtains the greatest number of marks, over 900, of any of the Students examined in Sub-Divisions I., II., and III.; and the name of the Student so distinguished will be permanently recorded on the walls of the Lecture Hall.

The Members of the Council will give the Student who succeeds in earning the distinction of "Institution Scholar" an opportunity (free of charge) of acquiring practical experience, for a period not exceeding twelve months, in a London Office.

A Medal will be given to any Student obtaining 900 marks in any of the Sub-Divisions.

A Special Prize of £20 will be given to the Student (not being the "Institution Scholar" or the Winner of "The Institution Prize") obtaining the greatest number

of marks, over 500, of anyone examined in Sub-Divisions I., II., and III.

President's Prize.

A Prize of £15, to be called the "President's Prize," will be given to the Student who passes the best *vivâ voce* Examination in some subject, to be previously announced.

It is open for all Students to compete for the "President's Prize," providing they give notice of their intention to do so at the same time that they signify the Sub-Division under which they desire to be examined, in Division II.

Crawter Prize.

The Interest accruing on the sum of £200, bequeathed to the Institution by the late Mr. Henry Crawter, and invested in the names of the Trustees, will, from time to time, be applied to providing a Prize to be called the Crawter Prize.

£25 Prizes.

Two sums of £25 each have been offered by a Member of the Council, to be expended in providing additional Prizes in connection with Examinations in this Division, and will be awarded on such occasions and on such conditions as may be from time to time determined.

The name of the Winner of the Institution Scholarship, and those of the Prize-winners in the various Sub-Divisions of Division II., will be announced at the Annual General Meeting, and the Prizes will be publicly presented to the successful Competitors at that Meeting.

Notice will be given of any variations as regards the character or amount of the Prizes, or any change in the conditions under which Prizes or Scholarships are offered.

Rules regulating the conduct of the various Examinations under Division II. will be previously published.

DIVISION III.

Voluntary Examination for Candidates (other than Students) for the Class of Professional Associates.

Voluntary Examinations will be held in the month of April (contemporaneously with Students' Proficiency Examination, see page 4), for Candidates (other than Students) for the Class of Professional Associates.

Subjects.

This Examination, which comprises the Subjects set out in Table B, is almost identical with the Proficiency Examination for Students, but the minimum pass number of marks is 700 out of 1,200, instead of the 500 out of 1,000 required in the case of Students.

Marks.

Notice of Candidature

The Candidate (who must be over 21 years of age) will be required, as a preliminary, to fill up and forward a form, (to be obtained of the Secretary,) setting forth his antecedents and professional experiences. This form must be subscribed by at least one Fellow of the Institution, and submitted to the Council for approval not later than the second week of the month of January preceding the Examination for which the applicant desires to enter his name. Should the application be approved, the fact will be notified to the Candidate, who must, before the expiration of the same month, give notice of the Sub-Division and of the scientific and special subjects (see Table B), and the alternative subject (7) if in Sub-Division I., in which he elects to be examined,* and forward the sum of Two Guineas as an Examination Fee. This sum will be placed to his credit if and when enrolled as a Professional Associate of the Institution.

Deposit.

Those successful in passing this Examination in either of the Sub-Divisions of Table B will, when enrolled as Professional Associates, be distinguished by an asterisk prefixed to their names in the List of Members.

The passing of this Examination is equivalent (see Table E) to passing in the first group of subjects of the Fellows' Examination, leaving six subjects only to be taken up for the latter Examination at some subsequent date.

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* *Candidates in the Land Agency Sub-Division of Table B, who can produce diplomas or certificates of proficiency in respect of any of the Subjects* 5, 6, 8, *and* 9, *from the Royal Agricultural College, Cirencester, or the College of Agriculture, Downton, will be exempted from examination in such subjects, proportionate marks being allowed them.*

TABLE B.]

DIVISION III.

VOLUNTARY EXAMINATION FOR CANDIDATES (OTHER THAN STUDENTS) FOR THE CLASS OF PROFESSIONAL ASSOCIATES.

SUB-DIVISION I.—Chiefly Land Agency.

Compulsory Subjects. †

1 Land Surveying and Levelling and Elements of Trigonometry.
2 Book-keeping.
3 Construction and Use of Valuation Tables.
4 Law of Landlord and Tenant, } Elements of: { bearing on the Practice of the Land-Agent.
5 Agriculture.
6 Construction of Farm Buildings.
7 Forestry, } Or Timber Measuring, at the option of the Candidate.
8 Land Drainage.
9 Geology and Composition of Soils.
10 Chemistry, Elements of.

SUB-DIVISION II.—Chiefly Valuation.

Compulsory Subjects. †

1 Land Surveying and Levelling and Elements of Trigonometry.
2 Book-keeping.
3 Construction and Use of Valuation Tables.
4 Law of Landlord and Tenant,
5 Law of Fixtures,
6 Law of Dilapidations,
7 Agricultural Law,
8 Law of Easements and Riparian Rights,
9 Enfranchisement of Copyholds. } Elements of: bearing on the Practice of Land Valuation.
10 Algebra, including Quadratic Equations.

SUB-DIVISION III.—Chiefly Building.

Compulsory Subjects. †

1 Land Surveying and Levelling and Elements of Trigonometry.
2 Book-keeping.
3 Construction and Use of Valuation Tables.
4 Modes of Pricing Work.
5 Estimation of Quantities and Measurement of Artificer's Work.
6 Constructive and Working Drawings.
7 Law of Fixtures,
8 Law of Dilapidations,
9 Law of Easements, Light and Air, } Elements of: bearing upon the Construction and Survey of Buildings and Management of House Property.
10 Composition and Properties of Stone and Cement.

SCIENTIFIC AND SPECIAL.

(TWO AT LEAST OF THE FOLLOWING SUBJECTS (AT THE OPTION OF THE CANDIDATE) MUST ALSO BE TAKEN IN EACH OF THE THREE SUB-DIVISIONS.

Algebra.	Meteorology, Principles of.	Natural History.
Hydrostatics, Elements of.	Metropolitan Buildings Acts.	Principles of Parochial Assessment.
Metallurgy (Physical Properties of Metals).	Mineralogy (Form and Physical Properties).	Trigonometry (Higher).

NOTE.—A Syllabus showing the exact range of each Subject can be obtained on application.

† No Candidate will be held to have passed the Examination who has not obtained an aggregate of 700 Marks, of which at least 550 must be obtained in the ten "compulsory subjects" of the Sub-Division which the Candidate elects to be examined in.

DIVISION IV.

Professional Associates' Voluntary Examination for the Class of Fellows.

Voluntary Examinations for the Fellowship will be held in the month of April (contemporaneously with the Examination for the Class of Professional Associates), for:—

Candidates who have previously passed the Examination in Division II. or III.

Subjects

Candidates in Division IV. must pass the Fellowship Examination in the subjects 11 to 16, (see Table C) both inclusive, in the Sub-Division in which they passed their previous Examination.

Marks.

The minimum pass number of marks is 500 out of 1,000.

It will be open to Candidates to present themselves, irrespective of age, at any Examination held under Division IV.; but they will not be eligible for election to the Class of Fellows unless and until they have attained the age of 25 years.

Notice of Candidature.

The Candidate will be required, as a preliminary, to fill up and forward a form (to be obtained of the Secretary), setting forth his antecedents and professional experiences. This form must be forwarded to the Council for approval not later than the second week of the month of January preceding the Examination for which the Candidate desires to enter his name. Should it be approved, the fact will be notified to the Candidate, who must, before the expiration of the same month, forward the sum of Three Guineas as an Examination Fee. This sum will be placed to his credit if and when enrolled as a Fellow of the Institution.

Deposit.

Candidates successful in passing this Examination will, when enrolled as Fellows, be distinguished by an asterisk prefixed to their names in the List of Members.

TABLE C.]

DIVISION IV.*

VOLUNTARY EXAMINATION (FOR PROFESSIONAL ASSOCIATES) FOR THE CLASS OF FELLOWS.

SUB-DIVISION I.—Chiefly Land Agency.	SUB-DIVISION II.—Chiefly Valuation.	SUB-DIVISION III.—Chiefly Building.
11 Nature and Incidence of Local Taxation.	11 Timber Valuing and Measuring.	11 Road Making.
12 Botany (of Grasses).	12 Nature and Incidence of Local Taxation.	12 Sanitary Science.
13 Agricultural Chemistry.	13 Sanitary Science as applied to Buildings.	13 The Building & Sanitary Acts, } Elements of: as affecting the Construction and Survey of Buildings and the Management of House Property.
14 Law of Arbitration, } Elements of: bearing on the Practice of the Land-Agent.	14 Law of Arbitration, } Elements of: bearing on the Practice of Land Valuation.	14 Law of Arbitration,
15 Law of Vendors and Purchasers,	15 Land Clauses Acts,	15 Mechanics (Law of Forces),
16 Agricultural Law,	16 Law of Vendors and Purchasers,	16 Construction of Iron and Timber Roofs.

NOTE.—A Syllabus showing the exact range of each subject can be obtained on application.

* Candidates in Division IV. must have previously passed the Examination in Division II. or Division III.

DIVISION V.

Voluntary Examination for Candidates (other than Professional Associates) for the Class of Fellows.

Voluntary Examinations for the Fellowship will be held in the month of April (contemporaneously with the Examination for the Class of Professional Associates), for :—

Candidates other than Professional Associates for the Fellowship.*

Candidates in Division V. may elect to pass the Examination (in the subjects 4 to 16, both inclusive), in any of the Sub-Divisions of Table D.

Marks. The minimum pass number of marks is 1,200 out of 2,000.

It will be open to Candidates to present themselves, irrespective of age, at any Examination held under Division V.; but they will not be eligible for election to the Class of Fellows unless and until they have attained the age of 25 years.

Notice of Candidature. The Candidate will be required, as a preliminary, to fill up and forward a form (to be obtained of the Secretary), setting forth his antecedents and professional experiences. This form must be subscribed by at least two Fellows, or one Fellow and one Associate, of the Institution, and submitted to the Council for approval not later than the second week of the month of January preceding the Examination for which he desires to enter his name. Should it be approved, the fact will be notified to the Candidate, who must, before the expiration of the same month, give notice of the Sub-Division in which he elects to be examined, and

Deposit. forward the sum of Three Guineas as an Examination Fee. This sum will be placed to the credit of the Candidate if and when enrolled as a Fellow of the Institution.

Candidates successful in passing this Examination, will, when enrolled as Fellows, be distinguished by an asterisk prefixed to their names in the List of Members.

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* *It will be open to existing Fellows to present themselves for Examination in Division V.*

TABLE D.]

DIVISION V.

VOLUNTARY EXAMINATION FOR CANDIDATES (OTHER THAN PROFESSIONAL ASSOCIATES) FOR THE CLASS OF FELLOWS.

SUB-DIVISION I.—Chiefly Land Agency.	SUB-DIVISION II.—Chiefly Valuation.	SUB-DIVISION III.—Chiefly Building.
4 Law of Landlord and Tenant (Elements of). 5 Agriculture. 6 Construction of Farm Buildings. 7 Forestry. 8 Land Drainage. 9 Geology and Composition of Soils. 10 Chemistry (Elements of). — Or Land Surveying and Levelling, at the option of the Candidate. 11 Nature and Incidence of Local Taxation. 12 Botany (of Grasses). 13 Agricultural Chemistry. 14 Law of Arbitration, } Elements of: bearing on the Practice of the Land-Agent. 15 Law of Vendors and Purchasers, } Elements of: bearing on the Practice of the Land-Agent. 16 Agricultural Law, } Elements of: bearing on the Practice of the Land-Agent.	4 Law of Landlord & Tenant, } Elements of: bearing on the Practice of Land Valuations. 5 Law of Fixtures, } Elements of: bearing on the Practice of Land Valuations. 6 Law of Dilapidations, } Elements of: bearing on the Practice of Land Valuations. 7 Agricultural Law, } Elements of: bearing on the Practice of Land Valuations. 8 Law of Easements and Riparian Rights, } Elements of: bearing on the Practice of Land Valuations. 9 Enfranchisement of Copyhold. 10 Algebra, including Quadratic Equations. 11 Timber Valuing and Measuring. 12 Nature and Incidence of Local Taxation. 13 Sanitary Science as applied to Buildings. 14 Law of Arbitration, } Elements of: bearing on the Practice of Land Valuation. 15 Land Clauses Acts, } Elements of: bearing on the Practice of Land Valuation. 16 Law of Vendors and Purchasers, } Elements of: bearing on the Practice of Land Valuation.	4 Modes of Pricing Work. 5 Estimation of Quantities and Measurement of Artificer's Work. 6 Constructive and Working Drawings. 7 Law of Fixtures, } Elements of: bearing on the Construction and Survey of Buildings and Management of House Property. 8 Law of Dilapidations, } Elements of: bearing on the Construction and Survey of Buildings and Management of House Property. 9 Law of Easements, Light, and Air, } Elements of: bearing on the Construction and Survey of Buildings and Management of House Property. 10 Composition & Properties of Stones & Cements. 11 Road Making. 12 Sanitary Science as applied to Buildings. 13 The Building and Sanitary Acts, } Elements of: as affecting the Construction and Survey of Buildings and the Management of House Property. 14 Law of Arbitration, } Elements of: as affecting the Construction and Survey of Buildings and the Management of House Property. 15 Mechanics (Law of Forces). 16 Construction of Iron and Timber Roofs.

A Report on some Special Subject named by the Council will be required of Candidates in Division V.

NOTE.—A Syllabus showing the exact range of each Subject can be obtained on application.

ʊB-DIVISION III.

hiefly Building.)

	Subject Numbers.	
	(1)	Land Surveying and Levelling and Elements of Trigonometry
	(2)	Book-keeping.
y n	(3)	Construction and Use of Valuation Tables.
or al p. arks ON II.	(4)	Modes of Pricing Work.

PAPER 115.
No. 198.

DISCUSSION ON THE

AGRICULTURAL HOLDINGS BILL, 1883.

WITH AN ANNOTATED ABSTRACT OF THE BILL.

BY E. RYDE (PRESIDENT).

Read at the Ordinary General Meeting of THE SURVEYORS' INSTITUTION, *May 21st*, 1883.

THE PRESIDENT (MR. E. RYDE) IN THE CHAIR.

THE PRESIDENT hoped he had not done what would be displeasing to the Members in preparing a short digest of the Bill for their use that evening. It seemed to him that it might tend to prevent the discussion from becoming desultory. It was not prepared with a view of setting out the whole of the details of the Bill, but as a text paper for discussion.

IT is proposed that this Act, if passed, should come into force on the 1st January, 1884, and should apply to all holdings which are agricultural, or pastoral, and which exceed two acres in extent. The Bill does not really apply to improvements made by the tenant in respect of—

(1) Erection or enlargement of buildings.
(2) Laying down of permanent pasture.
(3) Making and planting of osier beds.
(4) Making of water meadows or works of irrigation.
(5) Making of gardens.
(6) Making or improving of roads or bridges.
(7) Making or improving of watercourses, ponds, wells, or reservoirs, or of works for supply of water for agricultural or domestic purposes.
(8) Making of fences.

(9) Planting of hops.
(10) Planting of orchards.
(11) Reclaiming of waste land.
(12) Warping of land.

The Bill, by Section 3, specially provides that compensation shall not be payable in respect of such improvements executed after the commencement of the Act, unless the landlord has previously consented in writing to the making of such improvements. Moreover, there are express provisions that the consent of the landlord may be given unconditionally upon such terms as may be agreed upon. This leaves the law very much in the same condition as it is at present, inasmuch as it leaves the power entirely in the hands of the landlord to prohibit or otherwise the making of the so-called improvements.

Improvement by drainage is made the subject of a separate part of the schedule under the Act, and all that is required of the tenant is that he shall give his landlord a month's notice before beginning to execute the improvement. The landlord and tenant may then agree upon terms, and, if they do so agree, the compensation agreed on shall be deemed to be substituted for compensation under the Act; or the landlord may undertake the drainage works himself and charge his tenant 5 per cent. on the outlay.

This provision of the Bill places the power of having the work done entirely in the hands of the tenant, and leaves the landlord no option in that respect. All that it enables him to do is to do the work himself, on very unremunerative terms.

The practical operation of the Act is chiefly limited to the third part of the schedule. Under this provision in the Act the tenant may make the following *presumed* improvements without asking consent from his landlord, viz.:—

(14) Boning of land with undissolved bones.

15) Chalking of land.
(16) Clay-burning.
(17) Claying of land.
(18) Liming of land.
(19) Marling of land.
(20) Application to land of purchased artificial or other purchased manure.
(21) Consumption on the holding by cattle, sheep, or pigs, of cake or other feeding stuff not produced on the holding.

Compensation under the Act is payable in respect of these *alleged* improvements in every case in which the tenant is not entitled, under any contract or custom, or under "The Agricultural Holdings Act, 1875," to compensation in respect of such improvements, whether the improvement be made before or after the passing of the Act.

But where an agreement in writing, or custom, or "The Agricultural Holdings Act," provides specific compensation in respect of any one of these improvements, although executed after the commencement of the Act, such agreement and custom, and "Agricultural Holdings Act, 1875," shall prevail, and not the new Act.

And in the case of a tenancy commencing after the commencement of the Act, any agreement in writing securing to the tenant compensation "fair and reasonable" is to be regarded as in substitution for compensation under the Act.

But, except as above provided, any contract, agreement, or covenant made by a tenant which shall deprive him of his right to compensation in respect of the matter referred to in the schedule to the Act, shall be void both in law and in equity.

The Act provides that, in case of compensation for

manures, there shall be deducted from the compensation payable, the value of the manure that would have been produced by the consumption on the holding of any hay, straw, roots, or green crops sold off the holding within the last two years of the tenancy, in respect of which a proper return of manure has not been made in respect of such produce sold off.

The landlord may also set off any amount of rent which may be due, and tithes and rates remaining unpaid, and any claim which he may have against the tenant for breaches of covenant; but in respect of waste by the tenant, or breaches of covenant in relation to acts of husbandry, the period over which the enquiry can extend is limited to four years.

Any difference arising between landlord and tenant as to the amount of compensation to be paid under the Act is to be settled by reference, under the provisions of "The Agricultural Holdings (England) Act, 1875." Sections 20, 22 to 30, and 33 to 40, inclusive, are to be incorporated in this Act, modified as follows:—

The notice in writing to be given by a tenant to his landlord of his intention to make a claim for compensation shall be two months instead of one month.

The award shall not award a sum generally, but shall so far as reasonably may be specify—

(*a*) The several improvements, acts, and things, in respect whereof compensation is awarded;

(*b*) The time at which each improvement, act, or thing was executed, done, or permitted;

(*c*) The sum awarded in respect of each improvement, act, and thing.

No appeal shall be had to the County Court unless the amount claimed exceeds £100. When the tenant has given notice of his intention to claim compensation, the landlord and tenant may come to an agreement if they can. The

landlord may charge his estate with the amount he has to pay the tenant.

In the case of all yearly tenancies, whenever created, notice to quit is to be a year instead of half-a-year, unless the landlord and tenant agree to the contrary. But this provision is not to apply to a tenant who becomes bankrupt or makes a composition with his creditors.

Where a tenant affixes to his holding any engine machinery, or other fixture for which he is not under this Act or otherwise entitled to compensation, and which is not so affixed in pursuance of some obligation in that behalf, or instead of some fixture belonging to the landlord, then such fixture shall be the property of and be removable by the tenant:

Provided as follows:—

(1) Before the removal of any fixture the tenant shall pay all rent owing by him, and shall perform or satisfy all other his obligations to the landlord in respect to the holding:

(2) In the removal of any fixture the tenant shall not do any avoidable damage to any building or other part of the holding:

(3) Immediately after the removal of any fixture the tenant shall make good all damage occasioned to any building or other part of the holding by the removal:

(4) The tenant shall not remove any fixture without giving one month's previous notice in writing to the landlord of the intention of the tenant to remove it:

(5) At any time before the expiration of the notice of removal the landlord, by notice in writing given by him to the tenant, may elect to purchase any fixture comprised in the notice of removal, and any fixture thus elected to be purchased shall

be left by the tenant, and shall become the property of the landlord, who shall pay the tenant the fair value thereof to an incoming tenant of the holding; and any difference as to the value shall be settled by a reference under this Act, as in case of compensation (but without appeal).

There shall be incorporated with this Act Sections 45 to 50, both inclusive, of "The Agricultural Holdings (England) Act, 1875," relating to lands belonging to the Crown and the Duchies of Lancaster and Cornwall, and to ecclesiastical and charity lands.

In the construction of the said sections, improvements of the first class shall mean the improvements Nos. 1 to 12, page 1 of this Paper, and the drainage improvement and improvements of the second class, or of the third class, shall mean the improvements Nos. 14 to 22, page 2 of this Paper.

The law of distress is limited by Section 15 to one year's rent.

"After the commencement of this Act, it shall not be "lawful for any landlord entitled to the rent of any holding "to which this Act applies to distrain for rent, which "became due in respect of such holding, more than one "year before the making of such distress."

"As regards live stock belonging to another person taken "in by the tenant, to be fed at a fair price agreed to be paid "for such feeding by the owner of such stock to the tenant, "such stock shall not be distrained by the landlord for "rent where there is other sufficient distress to be found, "and if so distrained by reason of other sufficient distress "not being found, there shall not be recovered by such "distress a sum exceeding the amount of the price so agreed "to be paid for the feeding, and it shall be lawful for the

" owner of such stock, at any time before it is sold, to " redeem such stock by paying to the distrainer a sum " equal to such price as aforesaid, and any payment so " made to the distrainer shall be in full discharge as against " the tenant of any sum of the like amount which would be " otherwise due from the owner of the stock to the tenant " in respect of the price of feeding.

" Agricultural or other machinery which is the *bonâ fide* " property of a person other than the tenant, and is on the " premises of the tenant under a *bonâ fide* agreement with " him for the hire or use thereof in the conduct of his " business, shall not be distrained for rent in arrear."

Generally the law of distress is much altered.

" Where an incoming tenant has, with the consent in " writing of his landlord, paid to an outgoing tenant any " compensation payable under or in pursuance of this Act " in respect of the whole or part of any improvement, such " incoming tenant shall be entitled on quitting the holding " to claim compensation in respect of such improvement or " part in like manner, if at all, as the outgoing tenant " would have been entitled if he had remained tenant of the " holding, and quitted the holding at the time at which the " incoming tenant quits the same.

" A tenant shall not be entitled to claim compensation " by custom or otherwise than in manner authorized by " this Act in respect of any improvement for which he is " entitled to compensation under or in pursuance of this " Act, but where he is not entitled to compensation " under or in pursuance of this Act he may recover com- " pensation under any other Act of Parliament, or any " agreement or custom, in the same manner as if this " Act had not passed."

The first important matter for discussion is the provision with reference to drainage. Assuming, for the minute, that

no tenant would seek to have land drained in a case of doubtful advantage, the terms suggested by the Act are nevertheless very inadequate. If the life of drainage is taken to be 20 years, the annual sinking fund which it is necessary to set aside to reproduce the original outlay within that period of time is £3 14*s.*, and the interest £3, so that, calculating it at the rate of 3 per cent. only, the equivalent to the landlord for the outlay of £100 is £6 14*s.* per annum.

If 5 per cent. only is to be charged, and £3 14*s.* is required as a sinking fund to reproduce the capital in 20 years, it follows that the landlord will only get £1 6*s.* interest for the use of his £100, or, in other words, he will be compelled to find the money at the rate of 1¼ per cent.

If he does not find the money, but allows the tenant to do the work, and the tenant finds that the drainage is unremunerative, he will put an end to his tenancy, and will compel the landlord to compensate him for his outlay. It is also important to bear in mind that if this provision remains in the Act it will be constantly referred to as a precedent in fixing terms for other transactions, and if a tenant is refused compliance with a request based on this precedent, he will feel himself aggrieved.

It is suggested that much inconvenience will arise from the retention of some sections of the Agricultural Holdings Act, and the repeal of other sections, and that it would be a preferable course to adopt if all the sections of the former Act, which are not to be repealed, could be incorporated with and made a part of this Act.

It will be seen, moreover, that the procedure clauses of the Agricultural Holdings Act are unaltered, and that no better provision is made for the appointment of an umpire than is contained in that Act.

The limitation of the law of distress to one year's rent appears to be an unnecessarily short term: a period of two years would have been preferable. On most estates, from three to five months' grace is allowed in the payment of each half-year's rent, so that very shortly after the Michaelmas rent has been paid the Lady-day rent becomes due. If, therefore, the landlord's power of distress is limited to one year's rent practically he can only give his tenant an additional six months' rent, by allowing a second half-year's rent to be due.

The expediency or fairness of placing entirely at the option of the tenant the effecting of the improvements enumerated in the third part of the Schedule will, doubtless, give rise to a very considerable discussion. It must be obvious that all lands would not of necessity be benefitted by many of the operations referred to in the Schedule, and it seems very unfair to deprive the landlord of any voice in a matter in respect of which he may be charged heavily, and he may not be able to get a new tenant to take the farm subject to the liability to recoup all the money which he has been compelled to pay. There is also the threadbare argument against locking up an amount of an incoming tenant's capital in things of very doubtful benefit to him.

Mr. E. P. Squarey (Vice-President) begged to move a cordial vote of thanks to The President for his luminous yet concise digest of the Agricultural Holdings Bill now before Parliament.

The Bill related to matters of great moment and interest. It was only so lately as March last that the Members of this Institution were discussing the question of freedom of contract, and it was satisfactory to observe that the Bill contained so much of that principle, and

was framed with such obvious regard to the lines of that discussion.

Freedom of contract between landlord and tenant was, he thought, secured under the present Bill. No doubt that freedom was limited by certain conditions, but those conditions were such as the nature and circumstances of the times rendered necessary, and such, moreover, as the tenants on the one hand, and the more liberal of the landlords on the other hand, were willing to accept. The Bill, as a whole, established relations between the two parties which, he believed, would work harmoniously after the first strain was over.

He would endeavour to confine his remarks to three main issues. First, as to the schedule of drainage by the tenant. THE PRESIDENT's Paper clearly showed that a great wrong threatened the landowner if the provisions of the Bill passed in their present form. It was, no doubt, true that the tenant-farmer and the capitalist landowner had frequently agreed that 5 per cent. was a fair and reasonable interest to be paid for drainage, but that sum was the outcome of a special arrangement between the landlord and his tenant. It assumed the carrying out of the operation under the immediate care and superintendence of the landowner himself—in other words, its performance in the best and most efficient manner. Under such circumstances, and where there was no interference in the shape of tree roots, or other exceptional conditions, the life of drainage would certainly be longer than THE PRESIDENT assumed in his Paper, with a corresponding decrease in the rate of sinking fund chargeable in respect of it.

There was one point to which the attention of Parliament should, he thought, be directed, in connection with drainage, or great wrong would be done. As landowners and land-agents well knew, there were certain people

who went into farming with particularly sanguine expectations, and who looked for results which events did not always justify. For instance, the rainfall of the last seven or eight years—a 40-inch rainfall in 1882 and a special 6-inch rainfall in February 1883—had begotten a condition of things, in certain districts, which might lead a sanguine or uneducated person to believe that land required draining which under average seasons and rainfall would not require it: no doubt large sums of money would be expended unnecessarily under this view by tenants, unless the landlord were put in a better position to defend himself than he was in as the Bill stood. If it was to be in the power of the tenant to drain, against the experience or desire of the landlord, there should be a right of appeal—say to an inspector appointed by the Land Commissioners—who should hear evidence on the necessity, or otherwise, of the drainage, and, in the event of his approving thereof, he should, at all events, have the power of directing the method of drainage and the expenditure to be incurred. The inspector should also have the costs of the enquiry in his discretion.

The next point was as to the mode of procedure. He confessed he did not like County Court Judges in relation to the adjustment of matters connected with land. As he had before remarked in that room, what was wanted was some easy mode of appointing an umpire through the Land Commissioners, at the option of either party to an arbitration. The present mode of selecting an umpire was, to those who were acquainted with the rough-and-ready way in which these things were done in rural districts, unsatisfactory, and it was too frequently a matter of chance whether justice was secured by the award. If the matter could be remitted to thoroughly impartial persons, such as he had suggested, he thought there would be a much sounder ap-

proximation to justice as between landlords, incoming and outgoing tenants.

With reference to the question of the law of distress, he might remark in passing, that after a year or two it would probably work satisfactorily to all parties. It was clear that a power to distrain for more than a year's rent placed the ordinary creditors in a false position.

He now came to what was, to his mind, an important omission from the Bill—he referred to the position of the person described as the "sitting tenant" in the letters of Sir JAMES CAIRD and Mr. BEAR in *The Times* of last Saturday. It must have struck every thoughtful Member of the Institution that the question of tenants' compensation under this Bill could only arise in the event of a severance of relations between the landlord and tenant. Now it was clear that the tenant who did not desire to throw up his farm, *might* (he used the word advisedly) be prejudiced by being called upon to pay an enhanced rent more or less founded on his own improvements. He believed the occurrence of such an event was extremely rare (he spoke from the experience of many others besides himself), and he could almost count on his fingers the instances where alleged injustice had arisen; but the contingency existed, and had to be faced.

He admitted that it was a theoretical rather than a practical grievance, but would it not be well, now that matters were in the way of being permanently settled, to make some effort towards its satisfactory adjustment? His belief was that there were very few cases where this right to raise the rent fairly and reasonably would be challenged by a "sitting tenant," if the costs of an enquiry before a competent authority, such as he had suggested, were to follow the event. What was specially needed, was some means of determining what should go to the credit of general im-

proved market value and good clean cultivation, liberal manuring and feeding, and what to improvements. Take the case of a tenant renting a farm at £450 a year. He farms it well and makes improvements of the second and third class, and the farm has a good face on it, and is thoroughly clean and in good order. The landlord, having the turn of the market in his favour, says, "I ought to have £500 a year for this farm." The tenant replies, "It is very unfair. You know I cannot leave. I have made improvements which have raised the farm to the admitted value of £500 a year—the rental you can now obtain for it, though at my loss." Under the existing system, the landlord could claim the whole increase as his own, but he (Mr. SQUAREY) would ask the Legislature and the Members of the Institution to look at the matter equitably, as he was sure they desired to look at it.

How were the respective claims, then, to be adjusted? Under the suggested conditions, a tenant would not endeavour to substantiate a claim for the whole of the difference of £50 a year between the original and improved rents as due to his improvements, but would be willing to admit that there was a rise in the market value which inspired the landlord to raise the question with him; but the point for solution, and it was a most complex one, was what was the proportion due to market value, and what to tenant's improvements, excluding cultivation and manuring? It was a question, of course, that could only be settled by reference if the landlord and tenant could not come to an agreement. His own impression was, that if powers were given by this Bill enabling the Land Commissioners to appoint an umpire, it would very rarely happen that any question would arise between landlord and tenant of so grave a character as to necessitate recourse to any such procedure, for, in the first place, the landlord, feeling the uncertainty

with which he was dealing, would be content with a moderate advance of rent, assuming that the tenant had really made improvements, and, in the next, the tenant would rather pay a fair and reasonable increase of rent than have the question settled by a party over whom he could have no sort of influence, and whose decision he had no means of forecasting with any degree of certainty.

What would probably happen would be this:—The old rent being £450 and the demanded rent £500, which the landlord and tenant had agreed on as the rent the farm was worth under existing circumstances, an umpire selected on the ground that he was an intelligent, able, and conscientious man, would decide, say, that £20 of the difference was due to the tenant's improvements, and that £480 was the rent representing the fair market value which the tenant should pay annually for his holding. But the converse of the case would not work. Assume that the tenant claimed an abatement of rent, notwithstanding improvements made by him. If the landlord and tenant could not agree as to an abatement, it was clear that the tenant could get all he is entitled to by giving notice to quit, and getting paid for his improvements on leaving. In a falling market the landlord would hesitate to lose him.

The large and important changes in the relations between landlord and tenant contemplated by the Bill would, he believed, very materially relieve the strain which existed at present between the parties, and he was satisfied that if the Bill were passed, even in its present form, the tenant would be very cautious about embarking in any of the more expensive improvements which were included in the second or third parts of the schedule. He confined himself to those parts because the landlord had a power of veto over improvements of the kind included in the first part of the schedule.

To take one of the most substantial improvements in

part 3, especially in the district with which he was most familiar, viz., the chalking of land. Chalking was an improvement which lasted, probably, from 30 to 40 years, if properly done. On the actual chalk hill itself, it cost from 40*s*. to 60*s*. an acre, and in some cases less. Up to the period of 1879 there was no difficulty at all in getting a farmer to undertake the operation of chalking, on the footing of repayment of expenditure over a period of 8 years; now he saw great justice in the arrangement that the tenant-farmer, instead of merely recouping his capital, at the end of 8 years, for improvements which would benefit the freeholder for a period of not less than 30 or 40 years, should be entitled to participate in the benefit of that improvement, on the basis of its value to the incoming tenant.

He had a very strong conviction that these powers on the part of the tenant would be very sparingly used in the event of the Bill becoming law. He believed, however, that there would arise among tenants a sense of relief and confidence on their part that their outlay, if reasonable, well-considered, and business-like, would be recouped to them. He had no doubt that, as in the past, the landlord would still be the person to make not only the improvements in the first part of schedule, but also those in the second part, as well as the more important improvements in the third part; leaving to the tenant the cultivating and manurial operations which appertained to the business of practical and good farming.

There was one question, which appeared to him to be of great importance to landowners. In justice to the reversioner it would be quite unfair that any charge for improvements in the nature of cultivation, manure, and feeding stuffs should be made a more or less permanent charge on the freehold.

THE PRESIDENT observed that it might interest the Meeting if he read an extract from a letter addressed to the Secretary, by Mr. WILLIAM FOWLER of Birmingham referring to the Drainage Section of the Schedule to the Bill. Mr. FOWLER said:—

"I cannot think that the draining clause can be allowed to pass in its present form.

"If I understand it rightly it comes to this,—that a tenant may take a farm, and having entered into possession, may say to the landlord, 'I consider this farm requires draining, and I give you three months' notice that it is my intention to drain it.' The landlord may say, 'I don't think the farm wants draining. I am poor and cannot afford to drain it. I let it to you as it is, and you said nothing about draining, or I should not have let it you. Besides, I don't know that you understand draining, and you may make a mess of it.'

"The tenant may say in reply, 'Never mind all that. I have only got to give you three months' notice of my intention, and the law authorizes me to drain it without your consent.'

"The landlord says, 'If that is so, God help me. I only wish I had never seen you, and I shall give you notice to quit as soon as possible.'

"Very well,' says the tenant, 'I am entitled to twelve months' notice to quit, and in that time I shall drain the whole farm, and you will have to recoup me $\frac{12}{20}$ths of my outlay, whether you like it or not.'"

Mr. W. BIDDELL, M.P. (Fellow), observed that he came rather with the object of picking up information than of addressing the Meeting, and in the hope of being able to transfer some of the practical wisdom of the Members to another assembly across the way. Still there were certain views which he held, and which, as he had been called upon to speak, he would endeavour to express. In the first place he would ask, "Was there any occasion at all for legislation as between landlord and tenant?" His experience dictated an answer in the affirmative. His opinion was that the present state of the law relating to agriculture was far from

satisfactory. What was the law of agriculture? It was not to be found in any text-book, and an endeavour to ascertain it from any of the judges of the land led to a reference of the points involved to the arbitration of "Brother So-and-so," who probably heard the matter in some private room, so that his voice never reached the public. The reason of the imperfection of the law was apparent: the law as regarded the outgoing tenant was founded on customs, in use perhaps for hundreds of years before they actually became law, and these customs, and the laws which grew out of them, did not meet the requirements of modern farming. Notwithstanding this, he was not one of those who would go very far in the direction of remodelling the law. He was sorry he was not present when the discussion took place on "Freedom of Contract." He was one of those who was inclined to uphold freedom of contract, regarding it as a slander on the tenants of the present day to maintain that they could not make their own bargains. He admitted that 20 or 30 years back landlords were in a different position. They could then dictate their own terms, and took as much rent as they could find it in their hearts to demand, saying, "There are my conditions; accept the farm or not as you please." But now things were in an altered position. At the time he had been speaking of there were three or four applicants for one farm; now there were three or four farms for one applicant, and the tenants were in a position to dictate to some extent the terms on which land should be taken. There was, therefore, nothing like the strong need of land law to intervene between the landlord and tenant that might have been pleaded years ago.

He regretted that the Government had not brought in what he might call a Consolidated Bill, embodying all the Acts of Parliament relating to this subject in one Act. There would now be three Acts of the kind in force, viz., PUSEY's Act (passed about thirty years ago, and little

known), the Agricultural Holdings Act, and the Act at present before Parliament. It was to be regretted that more time had not been given to the preparation of the Bill, so as to embody in it the previous Acts to which he had referred, for there was nothing more puzzling to the amateur lawyer than to have to construe an Act full of references to another Act, which was what would have to be done in the present instance.

With regard to improvements. Theoretically, no doubt, it was right that a man should be paid for his improvements, but he was not over-sanguine as to how the system would work. In all equity, if a tenant were paid for improvements, it should be as a set-off to dis-improvements. Agriculture was in by no means the satisfactory condition it was in six or eight years back, and he was afraid, if the landlord looked strictly to rights and stipulations, a balance might be left against the tenant. Therefore, he was not over-sanguine as to the benefits to the tenants likely to result from this Bill.

He did not see how the tenants' powers as to draining could be much abused, as Mr. Fowler appeared to think was likely; for the great principle of the Bill, and one of which he approved highly, was that everything should be paid for at its enhanced value. Therefore, if the drainage were done injudiciously, or the drains were put nearer than necessary, or if the soil drained was already drained by nature, the tenant could not be recouped his outlay, nor should he be so recouped. These questions of compensation would have to be considered from an incoming tenant's point of view, and not altogether from the landlord's point of view. His friend Mr. Squarey spoke of the landlords paying for this and that, but his knowledge of landlords led him to believe that they would want financially improving before they could pay for all these things. It would not do, therefore, to talk as though the landlords were persons

with large means at their disposal, for the exact contrary was the case in many instances.

There was, to his mind, one considerable blemish in the Bill—the power, namely, which the landlord possessed of refusing his consent to a tenant desirous of building. He had met with cases in his own practice where the landlord refused, as he put it, to "trammel his successors" when they came to the estate by giving a permission of the kind. He (Mr. Biddell) was one of those who thought that the want of proper buildings was a great injury to a farm, and what he wanted to see was a power to build without the consent of the landlord; but with permission to remove at the end of the tenancy. Good useful buildings could be erected, so as to enable the tenant to recover two-thirds of the cost; but, as the Bill stood, if the landlord refused to give the tenant permission to build, he could not build at all unless at the risk of sacrificing every shilling he laid out. He hoped, therefore, that the Government would consider the point, and introduce a clause to meet it. If not, he must ask some of his friends to do so.

Mr. J. L. Pattisson (Fellow) said he was not one of those who thought that this Bill was going to remove agricultural depression, nor did he think it was one that either landlords or tenants need be very much frightened at, because it had clearly been drafted with great care. It aimed at being an impartial Bill, and it did not go at all the length of the Farmers' Alliance, nor, on the other hand, was it so narrow in its scope and spirit as some of the other measures proposed. He thought the first clause rather begged the general question, suggesting that all tenant-farmers were improvers; and when he read in the margin "general right of tenant to compensation," he felt there should also be given an equally general right on the part of the landlord to compensation for

deterioration. The Bill stipulated that the compensation was to be "such sum as fairly represents the value of the improvement to the incoming tenant." This was a great point, because it was the incoming tenant who would have to pay in the end. A clause later on in the Bill actually suggested that the landlord and tenant would be making arrangements to this effect, for it provided that a tenant who had paid for his predecessor's improvements might claim compensation, on quitting, in respect of such improvements.

He observed that Sir JAS. CAIRD, in his letter to the *Times*, and also the late Lord VERNON, in his Bill, wished to make the measure of compensation the additional letting value of the land. Now, it appeared to him that this was very like introducing the germ of a fair-rent court, because he did not quite see how any valuer was to assess the additional letting value of the land upon the improvements of the outgoing tenant, without taking into consideration the whole question of the letting value of the land; and in fact he would often be called upon to say, "What is the letting value of this land?" This would amount, therefore, to setting up, indirectly, a fair-rent court. That was the reason, he presumed, why the Government drafted the clause in its present shape, instead of following the guidance of Sir JAMES CAIRD. Mr. SQUAREY had said that the Bill did not interfere much with freedom of contract. He (Mr. PATTISSON) did not quite agree with that remark, but the Bill might be taken generally as indicating to both landlord and tenant the lines on which an agreement should be based. It was clear, as regarded the greater improvements—those improvements which the Irish tenant so often did, viz., the erection of buildings, roads, fences, and drainage,—that the landlord had an actual veto under the Bill (except in the matter of drainage), and that he might make any agreement he liked in regard to them. The words relating to this in the Bill

were "upon such terms as to compensation or otherwise," though what the word "otherwise" meant he was at a loss to determine.

It was curious to note that the memorandum prefixed to Mr. CHAPLIN's Bill stated that if the landlord did not make what was thought to be a fair agreement as regarded compensation, the tenant might refer it to an umpire to decide whether it were a fair one or not. Under the present Government Bill it was quite clear there was no reference, and the landlord might make any bargain he liked. He presumed that the Government thought the tenant sufficiently powerful to resist an unfair bargain on the part of the landlord.

On the question of drainage he confessed he agreed with the gentleman who spoke previously that something more was wanted in the Bill. He would suggest that an umpire should be appointed, nominated by the Land Commissioners. A good example of the need of such an umpire was constantly occurring in a district with which he had to deal in connection with bush-draining. A tenant would want the land drained, and the landlord would admit that it wanted draining, and offer, according to the custom of the country, to find the tiles, the tenant doing the labour, or to be at the whole cost, charging the tenant interest at 5 per cent. The tenant constantly said "No, I prefer bush-draining." Now, under this Bill, it seemed to him (Mr. PATTISSON) that the tenant might enforce bush-draining against the landlord's wish, and at any depth he pleased. Experience proved that though bush-draining was serviceable for a time, it was not really effective, and in steam cultivation often got dragged up.

He thought there should be some authority to determine a question of the kind, but the Bill gave no such authority to appeal to. Again, one month's notice was not sufficiently long for an improvement like drainage. In the

case of the great majority of farms in this country the landlords, and often the agents, were not resident in the immediate locality, and for such an important operation more than a month's consideration was often needful. The Act of 1875 required that notice, for improvements of the second class, should be given to the landlord, but the present Bill did away with that notice. That seemed to him a mistake and a point that should be rectified: such improvements as chalking, if carried out on a large scale, represented a great deal of work, and it was only fair to the landlord that he should have the power of checking the work as it was done.

He might give an instance of what happened to him last year in reference to chalking, which was, perhaps, rather appropriate at the present time. A piece of land was laid down to grass in the Henley district, where there was a great deal of chalk, and to satisfy himself he sent a box of the soil to the Royal Agricultural Society to be analyzed, and asked whether chalking would be advantageous. Dr. VOELCKER's reply was, "There is chalk enough in this land." The bailiff, another tenant-farmer, and the outgoing tenant, all suggested chalking, and he confessed that he followed the custom of the country in preference to Dr. VOELCKER's advice, and as he had had reason to observe since, with satisfactory results. He instanced that to show how great authorities might be divided even on a matter of agricultural improvement, such as chalking. He hoped there would be comparatively little fighting over the smaller details of the Bill, but he observed that Mr. BORLASE, M.P., proposed to give notice that the Bill be applied to sitting tenants. There was, clearly, some equity in the claim; but the difficulty was that unless care were taken, the sitting tenant would get a sort of right to part ownership and continuous occupation, and a claim to what was called in Ireland

"compensation for disturbance." If it could be made clear to the sitting tenant that it meant no right to continuous occupation at all, he confessed there was a good deal of reason for the desire that this Bill should apply to sitting as well as to outgoing tenants.

But then, again, came the fact that this was getting very near that same fair-rent court, because he did not quite see that the improvements of the sitting tenant could be valued, except on the principle of the additional letting value of land.

As to the law of distress, he thought the Bill introduced an improvement, but practically he should prefer two years instead of one. However, he agreed with Mr. SQUARRY, and thought that the clause would work its way, and that, altogether, there was much reason to be satisfied with the Bill.

Mr. T. SMITH-WOOLLEY (Vice-President) rose to make an observation on one point which was, he thought, very curiously lost sight of. Fair and reasonable as the provision in the Bill might seem at first sight that the test of the amount of compensation, payable to an outgoing tenant in respect of any improvement, should be its value to the incoming tenant, there was, in his opinion, a serious fallacy in it, so far as it related to claims connected with an increase in the actual fertility of the land.

It proceeded on the assumption that the land, before the process of improvement commenced, had no latent or dormant capability of increased productiveness inherent in itself, and by consequence, that any improvement resulting from the tenant's outlay, was the absolute creation of the tenant, in the same degree, for instance, as a sculptor, who, having converted a block of stone into a work of art, had created an object of value out of a "caput mortuum," or inert mass of matter.

The actual fact, however, was, that all land worth

cultivation had in it a greater or less amount of natural fertility awaiting development, and this element, being the property of the owner of the land, should, to a certain extent at all events, be credited to him when the amount of the total improvement, resulting from the tenant's outlay, plus this element of latent natural fertility, came to be determined.

Many of the members could, no doubt, like himself, adduce from their own experience such cases as this—two different parcels of land, treated in the same way at the same cost—say grass land, with 15 cwt. of half-inch bones applied to the acre at a cost of £6 or £7, with the result that one parcel was thereby increased in rental value to the full extent of £1 yearly, say £25 in fee, while the other received comparatively little benefit: however the latter case might be dealt with, it was surely unfair to the landowner to give to the tenant in the former case, the whole of the latent value developed by him.

The case was, of course, stronger for the landowner if, as almost invariably happened, the tenant's rent was originally fixed with reference to the then existing condition of the land, or its want of condition, with an actual covenant, or tacit understanding, that he should farm it according to the rules of good husbandry.

As a matter of "practical politics" however, he knew that such utterances as those were but the voice of one crying in the wilderness; and all that remained for them to do, was to accept with more or less thankfulness the principle of the Bill, and apply themselves to promote as far as might be the improvement of the working details.

On these he was prepared to make some suggestions, but they had been anticipated, to some extent, by the speakers who had preceded him, and as he knew there were others to follow him he would not take up more of the time of the Meeting.

Mr. E. Clarke, Q.C., M.P. (Visitor), felt indebted to the Institution for the privilege of attending the Meeting, because he was very anxious to hear, in that place (where one could hear the voice of sense and reason, undisturbed by other influences), something about the real bearings of the Bill now before Parliament. He did not pretend to know much about the subject, but he was anxious to hear what those who had great experience of the matter thought of it, and he was glad to find that freedom of contract, which had been scouted and derided elsewhere, had some hold on The Surveyors' Institution. He believed in freedom of contract, not merely because he thought that the representations were exaggerated which led to its rejection in a certain place, but because he believed that freedom of contract amongst all persons, in whatever pursuits they were engaged, would produce the best economic results, and because he held that the interference of the State in limitation of private contract, whether agricultural or anything else, would diminish the economic result of the work done. He could go as far as this—that in certain habitual cases of contract it was desirable for the State to set up, as it were, a type of contract not to be enforced, but which might be appealed to, and which might eventually become the type of contract generally accepted.

There was one obvious difficulty about the Bill—he referred to a phrase which was capable of divers interpretations, but which appeared to have no interpretation in the Bill, and no tribunal by which it was to be interpreted. It would be noticed that if in the "case of a tenancy under a contract of tenancy beginning after the commencement of this Act, any particular agreement in writing secures to the tenant for any improvement mentioned in the third part of the schedule hereto, and executed after the commencement of this Act, fair and reasonable compensation, then in such case the compensation in respect of such improvement shall

be payable in pursuance of the particular agreement, and shall be deemed to be substituted for compensation under this Act." He could not, however, find in the Act who was to say what compensation was fair and reasonable, and it was obvious that this stood at the bottom of the whole matter; because the tribunal who had the decision of that question had really the decision of whether this Act was to be compulsory on all landlords and tenants. The difficulty was not diminished when one looked at the "general provisions" in Part III., and found in Section 24: "Any contract, agreement, or covenant made by a tenant, by virtue of which he is deprived of his right to claim compensation under this Act in respect of any improvement mentioned in the schedule hereto (except an agreement providing such compensation as is by this Act permitted to be substituted for compensation under this Act)."

That was fair and reasonable compensation; so that Clause 24 presented nearly the same difficulty of interpretation: "Except an agreement providing such compensation as is by this Act permitted to be substituted for compensation under this Act, shall, so far as it deprives him of such right, be void both at law and in equity." He wanted to know how they were to get at fair and reasonable compensation. Assume that a landlord and tenant created a tenancy of 21 years, and supposing it were perfectly obvious that in course of the tenancy certain work would have to be done, the landlord might say, if he were a moneyed man, "I will find the money for these improvements." There would be no claim for compensation then, because it had been done by the landlord, and the landlord had paid for it; but assume that the landlord said, "If I were to find you the money for the improvements, it would be £200. Supposing, therefore, instead of giving you £200, you find the money, and I will take £10 or £20 off the rent." It was precisely the same thing. He was simply giving the figures as an illustration.

There was no provision for such compensation under this Bill. The only way it could be dealt with was by some tribunal saying what was real and fair compensation. He observed that, although there was "compensation or otherwise," the "fair and reasonable" clause seemed to cover it all.

He was rather anxious to find some one advocating the claims of the "sitting tenant," because he wanted to see in what form the proposal was to be made for compensation to such a tenant. Supposing a man stood at £400 rent, and the landlord said, "I shall raise the rent to £450;" on which the man demurred and said, "No, £25 of that is in consequence of my improvements." He supposed that meant compensation for improvements made under this Act. If he left, he would be entitled to compensation under the Act. But, instead of going, suppose he wanted to stop. If compensation had to be given, it might be given in one of two ways—either by his beginning a new tenancy at an increased rent of £450, and being treated as if he were a separate and new tenant, and the landlord being obliged at once to pay him the value which an incoming tenant would pay, or else by conceding a reduction of rent. He did not know what was suggested to be done, but certainly the observation he had made was a fair one—that if there was to be an authority to fix the reduction of rent, that authority practically fixed fair value, and a machinery was created which enabled them to deal with every holding in the country. It seemed to him in one or two things the landlord was at a disadvantage. On any determination of tenancy the landlord was to be liable to pay the value of the improvements. He thought it should be on determination of tenancy, *except in consequence of non-payment of rent.*

If a tenant did not pay his rent it ought to disentitle him to any claim on his landlord under this Bill. The landlord would always be in a difficulty, because landlords

were somewhat impecunious people just now, and they rather dreaded being called on to pay compensation to an outgoing tenant. Supposing the tenant did not pay his rent, the landlord could not distrain for more than a year's arrears, and yet if he decided on taking possession of the land he had to find a sum of money to pay the tenant. Certainly he was entitled to set-off rent not paid, and there was a provision with regard to breach of covenant which was contained in the Bill. But it seemed to him that the landlord would stand rather in awe of his tenant as things were at present, because he might be obliged to terminate his tenancy in consequence of non-payment of rent, yet be liable to be called on for the expense of compensating the outgoing tenant. As he had said, he was present rather to listen to the comments of others, by which he and his colleagues might be guided in dealing with the matter in the House, than to take part in the discussion. He regarded this as a very moderate Bill in the main, and the landlord and tenant were left free, if they chose, to enter into an agreement; but some authority was clearly needed to decide what was fair and reasonable compensation, and he should like to have, as early as possible, some scheme for carrying out the suggestion of giving compensation to sitting tenants.

The President suggested that there was some misapprehension in assuming that the Bill did not deal with the case of the "sitting" tenant. The Bill dealt with ununexhausted improvements. By the term, a "sitting" tenant, he intended to denote for the present purpose a man who had created, by his skill and capital, improvements in the land for which he had not recouped himself, and that he was to continue in his holding. He (The President) read the letter of Sir James Caird in *The Times*, and the leader on the subject, and the impression created on his

mind was that both might have been written under a misapprehension. If A quit a farm, he will get paid under the Bill, as an outgoing tenant, for unexhausted improvements. If B take the farm, he must pay, as an incoming tenant, for those unexhausted improvements. If C be a tenant of another farm, and continue in occupation, he would not get paid for his unexhausted improvements, but he would be as well off as A, because he would still be in the enjoyment of the profit due to his unexhausted improvements. A would have the money in his pocket, but he could not get into another farm possessing the same amount of unexhausted improvements without paying for them, and the moment he paid for going into another farm, he placed himself in the same position as a man who had not been paid at all, and had not been required to pay.

It was difficult to put this clearly, but it seemed to him that the whole Bill was based on the assumption that in the future, at all events, it would be possible that there should be two interests in land—the one belonging to the tenant, whose money has been invested in the improvement of the land, for which he has not been fully recompensed; and the other, the landlord's interest. In the event of a change of tenancy, the incoming tenant must pay to the outgoing tenant for those unexhausted improvements. It was very desirable that this point should not be omitted from the discussion.

Mr. Squarey remarked that The President's observation as to the sitting tenant missed this point—that the rent of the sitting tenant might be raised on his own improvements; that was the key.

The President said of course, if it was intended that the landlord might raise his rent in respect of the tenant's improvements, that was another matter, but that would not

be carrying out the spirit of this Act, which, as he had said, recognized two distinct interests.

Mr. Gilson Martin (Fellow) said it was not his intention when he entered the room to take part in the discussion. A few points, however, had struck him, to which he would briefly refer. First, as to the proposed limitation of distress to twelve months. He could not see how it was possible under the provisions of the Bill to distrain for more than nine months' arrears. A distress could not be levied on the 25th of March, and on the 26th it would be out of court. If his contention were correct, the point was one of great importance.

Another point that would have to be guarded against was the excessive use or abuse of artificial manures and feeding stuffs. In most of the modern farming agreements it was usual to limit the use of artificial manures and cake to the average, say, of the two or three preceding years, but under this Bill there might be an excessive expenditure of the kind. He knew a case at the present moment where, the agreement imposing no limitation on the amount expended, on a 240-acre farm something like £500 or £600 worth of cake had been consumed during the past year, for one-half of which the incoming tenant had to pay.

There appeared to be a very awkward element in the provisions relating to draining—the fact, namely, that the tenant could call on the landlord to pay for draining which he had himself executed, and which might or might not have been required, and, after running the landlord into great cost, might walk away and leave him without a prospect of interest for the outlay incurred.

He believed the true remedy for the whole of the evils complained of was a well-considered form of agreement with liberal covenants.

Mr. T. CHATFEILD CLARKE (Fellow) thought that Mr. EDWARD CLARKE had hit a very doubtful point in the Bill as to what was "fair and reasonable compensation." He was bound, however, to say that he would draw an altogether different conclusion from that drawn by Mr. CLARKE, and it was this. Suppose a landlord or his agent were to make an arrangement with the tenant which might not be considered fair and reasonable, there was no determining power to say whether it was so or not, and the tenant might therefore suffer oppression, and the object of the Bill be frustrated.

Mr. EDWARD CLARKE: Either party?

Mr. T. CHATFEILD CLARKE: Well, either party.

He held in his hand a copy of a Bill bearing on the back the name of Lord RANDOLPH CHURCHILL, showing that on that side of the House also a Bill was considered necessary. This should not, therefore, be regarded as a party question, as it was admitted on all sides that legislation was needed.

A good deal had been said about reckless expenditure on drainage, but was it likely that a tenant would charge himself with the payment of 5 per cent. interest by way of addition to his rent, unless he felt that the drainage was really needed?

He himself felt that legislation was necessary to meet the case of the "sitting tenant," whose rent was going to be raised on his own improvements. He admitted that this was a difficult matter to deal with practically, but a solution of it might be found in Mr. SQUAREY's sensible suggestion, that there should be some court or authority to whose decision questions of the kind might be referred.

The discussion would, no doubt, have the effect of rendering more clear the real bearing of this question, which had been forced to the front by the altered circum-

stances of the times. The Bill was admitted to be very moderate—too moderate for many who had taken such an active part in its promotion—and he hoped it would receive impartial treatment at the hands of those who took part in its discussion, and that the question would be looked at with reference to all the circumstances and as a whole.

Sir J. Heron Maxwell, Bart., (Visitor) wished to say a few words with reference to the question which he had touched on in the discussion on "Freedom of Contract"—the question of distress. One of the speakers seemed to think that the law of distress tended to favour the landlord, but his own feeling was that it was the tenants who were to be congratulated that it was still preserved to them under the Bill. The abolition of hypothec—the equivalent in Scotland to the law of distress in England—told very much against the tenants' interests. When a tenant got into difficulties, and could not pay his rent, it was in the landlord's power, under the law of hypothec, to say, "I have got the power of distress in my hands, but I shall not levy; and I trust circumstances will mend, and that you will be enabled by-and-bye to pay your arrears, or a large portion of them." That might continue for 4 or 5 years (as it had on his estate), with the result that the tenant, instead of leaving, was enabled to get upon his feet again, and remain upon his holding.

Mr. D. Watney (Fellow) moved the adjournment of the discussion till Friday next, as he thought the matter was far too important for the discussion to be limited to the remaining time at disposal that evening.

The motion having been put to the Meeting and carried, the discussion was adjourned till Friday next, the 25th inst., at 7 o'clock.

No. 199.

AT

THE ORDINARY GENERAL MEETING,

Held on Friday, May 25th, 1883.

THE PRESIDENT (MR. E. RYDE) IN THE CHAIR.

The adjourned discussion on the "Agricultural Holdings Bill," 1883, was resumed by

Mr. D. WATNEY (Fellow) who said that as he understood the "Agricultural Holdings (England) Bill, 1883," it was to confer on agricultural tenants an indefeasible right to compensation for improvements of the kind enumerated in the schedules; that they should have that right from the present time for improvements under the First and Second parts of the schedule, and that the Bill was retrospective so far as the improvements set out in the Third part of the schedule were concerned.

The question was, what fairly represented the value of improvements to an incoming tenant? He was sorry to find from the Bill that their value was not limited by any number of years, by the amount of the tenant's outlay, or by any other condition whatever. He infinitely preferred the schedules of the "Agricultural Holdings Act of 1875." In that Act, improvements of the first class, or "permanent" improvements were limited to 20 years; improvements of the second class (called "durable") to 7 years; and those of the third class (called "temporary") to two years. He had no doubt it had been done after careful consideration, but he was sorry to find that the word "unexhausted" was omitted in this Bill, for the true principle of an improvement—the principle of the Act of 1875—was, in his opinion, its exhaustibility.

It seemed clear to his mind that improvements must exhaust by some means or other, *i.e.*, either by enjoyment or by payment. Now if a tenant had a right to be compensated, which he supposed would not be questioned, he should be compensated for what was left or unexhausted, and to arrive at this, the prime cost, the necessity for the improvement, and the manner in which it was carried out, would all form most important elements. His remarks did not, of course, apply to improvements under the First part of the schedule, to which the landlord's consent was previously required, and which were consequently a matter of arrangement between the parties.

Referring to the Second part of the schedule, he was of opinion that drainage should be transferred to the First part, as it was an operation which was in fact a very serious interference with the character of the land, and should not be done except with the consent of the owner. He entirely agreed with one of the speakers (Mr. SQUAREY) on the last occasion that recent seasons might easily lead a tenant whose experience of his farm was confined to these seasons to believe that the land really required draining, whereas it needed nothing of the kind in ordinary seasons. Nevertheless, the tenant was to have full liberty under the Bill to do what he liked in this respect with a month's notice of his intentions to the landlord. Draining, as those he was addressing were aware, was a very difficult operation requiring great care and skill, and the 5 per cent. per annum, which was the maximum the landlord could charge for it, was a totally inadequate return for the outlay involved in the proper execution of work of this kind. The consequences, as all Surveyors were aware, were most serious if the work were badly or imperfectly done, and so careful was he in this matter that it was his practice to appoint a foreman to every gang, whose duty it was to lay every pipe himself and be re-

sponsible for it. As he had said, he thought draining should be transferred to the First part of the schedule, but if it was to remain where it was, he would suggest (and he thought it would meet the difficulty), that no draining whatever should be done after notice to quit had been given by either party. The result would be that if the tenant gave notice to the landlord that after the expiration of one month he was going to drain certain land unless the landlord did it himself, the landlord could reply (though he would probably only do so in extreme cases), "Very well, I will give you notice to quit." This would enable the landlord to put a veto on the work, and would save him the annoyance and loss which an ignorant or perverse tenant might otherwise seek to inflict on him.

It was, however, the Third part of the schedule which required the most careful consideration, because it represented a class of improvements which were wholly optional with the tenant. It was reasonable that improvements of this kind should be paid for if properly carried out, but here again some fair and reasonable limit should be imposed. For instance, liming was often paid for on the one year principle, and in the home counties lime was very frequently used as a substitute for dung on the fallows. It seemed unreasonable, therefore, that a tenant who had paid for lime on the one year principle on entering should be able to claim for it, say, on the 12 years' principle when he went out.

There was another point of the kind to which he would like to call attention. In many cases (in the home counties, for instance) dung was paid for when the tenant quitted, whereas in Lincolnshire and the midland counties, what the tenant was paid for was the whole value of cake food consumed in the last year, and a decreasing payment in respect of the previous four or five years. This was reasonable in itself, but it would not be reasonable to ask

payment for this as well as for the dung, and it seemed to him, therefore, that words should be inserted in the Bill such as "regard being had to the various customs of the country."

Referring to Clause 6, it seemed to him only equitable that the landlord should be allowed to originate proceedings against a tenant for waste or breach of covenant. All that the clause at present provided was that the landlord might make a counter-claim. He thought, for example, that the landlord should be enabled to claim compensation for loss in re-letting his farm. During the last few years many farms had sadly deteriorated, in consequence of the tenants' losses, so that there was at the present time great difficulty in re-letting them; and if the tenant was to be paid for so-called improvements, he should, on the other hand, be called upon to pay for what has been denominated *disimprovements*. Section 6, sub-section *d*, gave the tenant unlimited power of claiming against the landlord, but stipulated that the landlord should have no power to claim against the tenant in respect of waste or breaches of husbandry committed more than four years before the determination of the tenantry. He failed to see why the two parties should not be put on an equality.

With regard to the procedure clauses he agreed that an umpire, in case of difference, should be appointed by the Land Commissioners. He considered this a most important point, and one that should be insisted on in the House of Commons during the progress of the Bill through Parliament.

There was another point connected with procedure which was important and likely, unless care were taken, to lead to trouble and litigation. He referred to the stipulation that the award was to set forth not only the details of the improvements, but the sum awarded in respect of each item. He thought it important that the details should

be shown because it would be the means of placing on record the exact nature and the date of each improvement, but if the sum were given against each item difficulties and disputes would unquestionably be invited.

As to the law of distress he was afraid that the proposed limitation to one year would have a serious effect upon the tenant's credit. At present, in the event of a bad season, a landlord was in a position to assist the tenant materially, and by helping him to tide over temporary difficulties, really enabled him to pay his other creditors also. If the landlord distrained, every other creditor would at once press him, and the result would be, in nine cases out of ten, ruin to himself and family.

He failed to see that the Bill introduced anything new with reference to machinery and fixtures. He always understood that if a tenant erected machinery and put up fixtures connected with the business of the farm, he could remove them at the end of his tenancy, making good any damage which might be occasioned to the premises by such removal.

Next, as to the "sitting tenant." He had carefully thought over Mr. SQUAREY's remarks, and had also studied the letter in the *Times* of the 18th inst, in which Sir JAMES CAIRD advocated that the "sitting tenant" should be compensated as well as the outgoing tenant, but he was quite satisfied in his own mind that if those suggestions were carried out, what would be brought about would be a double ownership in land. Once let the principle be established that a tenant has a goodwill in a farm, and it would soon follow that the landlord could not turn him out or raise his rent without going to arbitration, either to determine the future rental or to settle the compensation for so-called improvements. The result would be that the value of agricultural land would be seriously affected, and the friendly

and sympathetic relations which now existed between landlord and tenant would be radically interfered with. Take the case assumed by Mr. SQUAREY, on page 381 of the "Transactions," where the tenant paying £450 a year for a farm, his landlord seeks to raise his rent to £500, and the tenant argues that because the farm has a good face upon it, and is thoroughly clean and in good order, and cake and other feeding stuffs have been used, his rent should not be increased. The assumed tenant was a yearly tenant, and yet Mr. SQUAREY and Sir JAMES CAIRD would fix this tenant's rent by arbitration. Fixing rent by arbitration, and taking the power of dealing with his property out of the landlord's hands, was one of the most serious things which could happen to the landowners of this country, and it would naturally follow that the rent would not be so fixed for one year only, and hence fixity of tenure be a natural consequence. If the law was to fix the rent of a farm, why should it not fix the rent of a house? Was there any reason why the tenant who improved a house should not be equally entitled to claim fixity of tenure, and have his rent determined by arbitration?

Assume a yearly tenant who has improved a farm to the extent of £20 a year; how, after the lapse of years, was the value of the improvements to the incoming tenant to be determined unless one took the annual rental. He was at a loss to see how that was to be carried out in any practicable manner.

The contention of Sir JAS. CAIRD (and Mr. SQUAREY followed his lead) was that "If he (the tenant) continues in a steady course of good farming, raising the character and productive quality of the land, giving good wages to deserving workmen, and profitable employment to the village tradesmen, the improving farmer may be called on for an increased rent, partly arising from, and due to his

own skill and exertions." His (Mr. WATNEY's) answer was, let the tenant enjoy his improvements while he remains, and if he leaves his farm, let him be paid so much for the value of his improvements as then remain unexhausted. He should not be disturbed as a "sitting" tenant, but should be compensated if his rent were going to be raised. But Sir JAMES CAIRD, a few lines later in the same letter, gave the true solution to the question by observing, "By the lapse of time these improvements will have ceased a few years later to have had any value to an incoming tenant." This confirmed the argument which he (Mr. WATNEY) used in his opening remarks—that the time for which a tenant had enjoyed his improvements should be taken into account in compensating him, and, therefore, that the value to the incoming tenant should not be taken into account so much as the unexhausted value to the outgoing tenant. No doubt an outgoing tenant should be paid, on quitting his farm, for any portion of his capital properly expended from which he had derived no benefit, but if the supposititious claim now put forward on behalf of the "sitting" tenant be pushed to its logical (or rather illogical) conclusion, it might come to pass, under certain circumstances, that the tenant would be enabled to farm highly at his landlord's expense by presenting a bill each half-year in outset of his rent for artificial manures, lime, bones, cake, or other feeding stuffs previously expended on the farm, and from which he was then deriving the full benefit.

It would, in his opinion, be very undesirable to multiply the burdens on the incoming tenant. There were customs in the home counties, such as the half dressings, or the unexhausted value of manure put on the land in previous years, which the owners were obliged from time to time to buy up, for the sake of relieving the incoming tenant of the disadvantage of being compelled to let a portion of his capital lie dead in the shape of a valuation.

Mr. W. Rex (Fellow) said he did not know whether, in considering this Bill, sufficient regard had been had to its main purpose, which he took to be something more than the production of a piece of class legislation to confer a benefit upon tenant-farmers only, either at the expense of the landlords or otherwise. Its object was much wider than this, viz., to attract capital to the cultivation of the soil, by securing the tenant against the forfeiture of hard cash expended by him in improvements, and thus to promote such improved methods of cultivation and general good management as required capital as well as skill in order to bring out the greatest productiveness of which the land was capable, not altogether for the benefit of the tenant, but for the general welfare of the community.

The very long agricultural depression under which the country had been labouring for the last five years would of itself justify exceptional legislation, provided it did not inflict an injustice on one class for the benefit of another. But he did not think this Bill was of so exceptional a character as might at first sight appear.

That "property had its duties as well as its rights," from being treated as a sentiment was now taken as an axiom, and had become the basis of legislation generally. The owner was now invariably looked to as the party responsible for all improvements that the law required for the security and enjoyment of the public, whether the necessary outlay were recuperative or not.

As a matter of fact, Lord Cairns's Settled Land Act of last Session was a far greater interference with property than was now proposed. This Bill merely imposed upon the landlord the obligation to repay the outgoing tenant for improvements which he must necessarily leave behind him, but only such a sum as represented their value to the incoming tenant, and no more. He thought it must be

generally conceded that this was a fair measure of the actual money value to the landlord, and although he was obliged to pay he got his money's worth for his money.

This was a Bill without a preamble; there was no "Whereas it is expedient," &c. It seemed to be admitted on all hands, without argument, and to have been so admitted in 1875 when the Agricultural Holdings Act was passed, that the objects of the Bill were fair and legitimate. This might therefore be taken as granted.

The main consideration was whether the Bill was likely to attain those objects, in so far as not only to enable a tenant-farmer with safety to invest his money in profitable improvements and cultivate his land in the best possible manner, but to induce him to do so, because, if it did not do that, there would very soon be an outcry for further legislation, and it was most desirable that this should, as far as possible, be a final measure, in order that the strain and agitation on the subject of the relations between landlords and agricultural tenants should be set at rest for some time to come.

Although this legislation had been brought about by the recent agricultural depression, it did not appear to him to be framed so much to relieve that depression where tenants had stuck to their holdings as to assist in letting vacant farms. No doubt a great many farms could be let if the owners could give the same security to a tenant that this Bill gave, but so many landlords were merely tenants for life, or trammelled with mortgages, or under other disabilities, that they could not do so.

Part I., Clause 1, which embodied the principles and formed the basis of the whole Bill, required some qualifications. Whilst it secured the tenant it ought to be equitable to the landlord. It enacted that the tenant was to be entitled, on "quitting his holding, at the determination of a

"tenancy," to "such sum as fairly represents the value of "the improvement to an incoming tenant." An addition or limitation should be made as follows: "but in no case "shall the compensation exceed in amount the sum which "has been expended by the tenant in making such "improvement."

Unless this were done, there would be a few smart capitalists and speculators going about taking farms capable of great improvement—by drainage, for instance—not for the purpose of legitimate farming, but in order to make money out of the landlords. There were large areas of land, only worth about, say, 15*s.* an acre, that, by an outlay of £5 or £6 per acre in draining, might be doubled in value and made worth 30*s.* an acre to an incoming tenant; or being now worth 5*s.*, might be improved to £1, and so on. Taking this increase in value of 15*s.* an acre, even for 20 years, it was worth, on the 5 per cent. table, 12½ years' purchase, or £9 7*s.* 6*d.* per acre for what had only cost £5 or £6.

He did not for a moment suppose that it was intended, at any rate by the Government or Parliament, that a tenant should make a profit out of his expenditure beyond the annual profit derived from increased produce during his holding, although there were not a few people who went so far as to say that the tenant was entitled to the whole increment of value which he had imparted to the land; and this Bill said nothing to the contrary. But the country was, he thought, hardly prepared for that yet. The object of the Bill would, in his opinion, be attained by securing to the tenant the return of capital actually expended in improvements, or such part of them as he left behind unexhausted for the next tenant; and with this restriction, it was hardly likely that a tenant would, as Mr. Fowler seemed to fear, go on spending his money in draining the whole of his farm, in opposition to the expressed wish of his

landlord, on the mere chance of barely getting back the cost, and nothing more.

Besides, some portion, if not a very large share, of the improved value must arise from the natural fertility of the soil, which was the property of the landlord, and was merely brought out by the draining, chalking, liming, or other improvements.

Whilst on the subject of draining, he would remark that land which required it much would generally repay for the outlay in from 3 to 7 years—that is, arable land. He had known the whole cost repaid in the first crop, although the drains, if well laid, would generally remain effective for 20 years, and some he had seen lately were working well after 40 years; yet he could hardly think that it was intended to repay a tenant the whole of his outlay after 15 or 20 years. However effective the drains might be, at any rate they would last those 15 or 20 years less time than when first laid in, and he thought, for the sake of uniformity throughout the country, it would be well to make some limitation such as this:—

After 10 years, the compensation shall not exceed two-thirds of the cost:

After 15 years, shall not exceed half:

After 20 years, shall not exceed one-fourth.

In some cases the drains would silt up or become deranged in one-fourth of that time; but it would mostly be found in such cases that the draining yielded the quickest return and the largest profit for a more limited period, and the landlord would, he imagined, let the tenant perform the work. If draining would not pay the tenant good interest as he went on, it was not worth doing.

As to *five per cent.* as a maximum to be charged to the tenant for draining under Clause 4, this, no doubt, meant 5 per cent. per annum, although it did not say so; but even

then, where the landlord wished to charge the holding, he might be in a difficulty if he were a limited owner, for Clause 8 of the Bill said, "Where a landlord is not absolute "owner, the holding shall not be charged beyond the time "when the improvements will have become exhausted," and it would require a much higher rate to recoup the principal and interest within the time.

Further than this, the owner was empowered to assign the charge to any incorporated company, who again might assign to anybody else; but how could a landlord find any company or person to take an assignment at 5 per cent, or, in fact, at anything less than the usual terms of land-improvement or land-drainage companies, which, on the 4½ per cent. table amounted to £6 14*s*. per cent. for 25 years, and for a 15 years' term would amount to somewhere about 9 per cent. There was one thing to be said: if the tenant paid anything beyond bare interest, he would be paying for recoupment, and in time he, and not the landlord, would have paid for the draining, and then, perhaps, he would be entitled to set up a claim for compensation.

The successful working of the Act would depend very much upon the referees and umpires. It did not say whether they should be Surveyors, but he presumed that was the idea, as either party could work up to an appointment of umpire by the Inclosure Commissioners, although the mode of procedure was somewhat complicated. The principle upon which the value of the improvement to the incoming tenant should be assessed or ascertained was entirely in the hands of these referees and umpires, without any guidance, and, therefore, they ought to be good practical, experienced, and common-sense men.

With regard to fixtures, the tenant was not to remove them until all rent was paid. This might very well be modified by adding, "except where sufficient distress is

left on the premises." Where a tenant was entitled to an away-going crop, as in most of the northern counties, there was no necessity for his leaving his fixtures as security, unless there were more than half a year's rent due, and in any case the custom of the country should not be interfered with.

The limitation of distress to one year appeared very fair, and perhaps was all that should be allowed as against creditors; but he feared that after next harvest, landlords who had thousands of pounds in arrear would be looking out for themselves, and the change might precipitate a good many downfalls. There was one clause, under the head of distress, that would, in his opinion, help to bring capital into the large holdings; he meant the second part of Clause 16, which exempted agricultural machinery on hire from being distrained. If machinery meant or included all kinds of farming implements, no doubt most of the great implement makers would be turned into immense limited companies with millions of capital for letting out their goods on hire, and farmers would be able to get into farms with so much less capital, and have the money to lay out in live-stock, of which the country was sadly deficient just now, and which was, he thought, the worst feature in the present agricultural depression. Nearly all implements would then be sold on the hire system, as pianos were. As to the expenses of a distress, according to the old Act of Geo. III. below £20 the broker could only charge 3*s.* for the levy. By Clause 19 of this Bill the £20 was raised to £50, and the allowance for a man in possession increased from 2*s.* 6*d.* to 5*s.* a day; but no mention was made of the broker's fee. At present a broker could not be got to levy a distress for the most trifling amount of rent, even close to his own house or office, on the terms of the Act; and consequently the landlord had to pay 5 per cent. out of his

own pocket. This ought not to be. A fair compromise would be to allow the broker to charge 6*d.* in the pound on any amount of rent levied for.

Then, as to selling without an appraisement; as the law now stood, the broker was bound to offer the goods to the tenant or his nominee at the condemned price before he sold them. This was often a great advantage and convenience to the tenant, as his friend or creditor or banker could purchase them with perfect safety. They were free from the claims of creditors, and not liable to be distrained again until fresh rent was due. Thus a tenant, instead of being sold up at once, might go on again for a while and tide over until good markets or a good harvest set him on his legs again. There should be some provision made for offering the goods to the tenant at a fair and reasonable price. The landlord should also be empowered, if he thought fit, to hold over at the request of the tenant without incurring any risk thereby.

It had been said that the Bill did not apply to sitting tenants, but Clause 2 expressly said that Part III. of the schedule should so apply, and he thought it might very well be amended so as to make Part II. which referred to draining only, also apply. Then, Clause 27, which had been ridiculed as somewhat Irish, said, "A tenant who has remained "in his holding during a change or changes of tenancy shall "not be deprived of his right to claim, &c., for improvements "effected under his previous tenancy." He inferred from that that where there had been any change in the terms of the tenancy—say, a little increase or even decrease of rent—it was deemed a change of tenancy, or a new tenancy, and brought the tenant within the Act. So far, so good.

He was going to say that the only man left out in the cold was the yearly tenant who had gone on plodding away quietly, without troubling his landlord for a new agreement

or alteration of the terms of his holding; but he discovered a clause under Section 28 which dragged him in at the end of one or, at most, two years after the commencement of the Act, *i.e.*, he was to come in at the "earliest day on which the tenancy could be determined by either party." If the twelve months' notice were to apply, it would shut out all Lady-day tenants for fifteen months and all Michaelmas tenants for twenty-one months after the commencement of the Act.

As to buildings, if his anticipations were realized, and we had better farming and more stock, additional and better buildings would be more than ever required, and some arrangement ought to be made in the Bill to facilitate their erection.

He would conclude by thanking the Members present for the kind attention and the patience with which they had listened to his remarks, and would only further say that he thought, with a few slight modifications in the details of the Bill, very happy results might be anticipated from its operation.

Mr. W. Fowler (Fellow) said he was not aware that he should have had the honour of addressing the Meeting that evening. Therefore, if the few remarks he was about to make should appear somewhat crude and less exhaustive than he should wish them to be, he would ask for the kind forbearance of the Meeting.

He regarded the Bill as a dangerous and mischievous measure. He did not mean to say that all its provisions were objectionable, but the principle on which it was founded was unsound, and subversive of the rights of property. In short, it was a mild form of Communism. In a free country one would suppose that the owner of property might be considered to be entitled to exercise some little

right over it. It appeared, if things were to go on on their present lines, that the only person who would have no right to interfere with property at all would be the unfortunate owner.

The First part of the schedule, where the landlord's consent was necessary, might be passed by. Legislation seemed superfluous where it was competent for the landlord and tenant to make arrangements. As to the Third part of the schedule, with the exception perhaps of feeding stuffs and manure, it was absurd to suppose that the incoming tenant would pay, because everyone acquainted with land knew that where there was a heavy incoming it was an insuperable bar to letting a farm. An incoming tenant always asked what he was to pay on entering. In nineteen cases out of twenty the landlord would have to pay for everything beyond the ordinary acts of husbandry. He did not object to the right to distrain being curtailed, but he thought it should be to two years instead of to one year. It would be a great disadvantage to a tenant to reduce it below two years, as it would not be possible for landlords to give such credit to struggling tenants as they now could.

Some of the allowances to be made under the Third part of the schedule were, in his opinion, on too high a scale, but the greatest objection he had to the Bill was the monstrous proposition of giving to an annual tenant the power to drain a farm without his landlord's consent, and perhaps against his wishes, and practically at his landlord's cost. He would not enlarge on this point, because the Meeting on Monday last was good enough to listen to an extract from a letter from him. He would only add that he firmly believed that the present extraordinary unwillingness to invest in land was due much more to the reasonable dread of threatened unfair and dishonest legislation than to the

effects of the long succession of unfavourable seasons and depressed trade.

Mr. S. B. L. Druce (Associate) thought that all moderate-minded men would, having regard to the contentions raised by extremists throughout the country, receive the Bill with a certain amount of satisfaction, and he trusted that the Institution would so far bless it as to render it a more easy task for Her Majesty's Government to carry it on the second reading; thereby establishing what he apprehended to be a principle which, taking the whole country throughout, appeared to commend itself to the majority of people interested—the principle, that the quitting tenant was to obtain from his landlord, as compensation, such sum as fairly represented the value of the improvements to an incoming tenant. That seemed to be the fairest principle on which compensation could be paid to a quitting tenant. It had been said by Mr. Watney that the measure of the compensation should be what remained of the value of the improvement to the outgoing tenant. He (Mr. Druce) thought the principle of the Bill—the value of the improvement to the incoming tenant—a better one, because it meant payment by the result of the improvement made by the outgoing tenant, irrespective of the money bestowed upon it.

It would, he hoped, put a stop to what had been so damaging to the agriculture of some parts of the country—the fact, namely, that the incoming tenant had to pay for things which the outgoing tenant had done on the farm simply for the purpose of putting money into his pocket when leaving, and for which the incoming tenant received nothing in the shape of a *quid pro quo*. This main principle of the Bill was one for which all should be thankful. He fully

admitted, with Mr. WATNEY, the very great difficulty of ascertaining the value to the incoming tenant, and not being a valuer himself he might say what perhaps if he were a valuer he should not say—that the success of the Act would depend very much on the way the valuers throughout the country worked out that principle. He thought it would be a good amendment to the Bill if some provision were inserted in it prescribing some qualification for a valuer or umpire. He had already suggested, in a public paper, that after a certain time no valuer should be allowed to conduct these valuations unless he were a Member of, or had passed the qualifying examination of, The Surveyors' Institution. He had also advocated this when examined before the Royal Commissioners on Agriculture, and he ventured to think that it was a suggestion which was well worthy of consideration.

Should there be any difficulty in the matter, he would suggest the adoption of the proposal contained in the Bill of that most highly-esteemed nobleman, the late Lord VERNON, that after the 31st December, 1884, no one should act as umpire in any reference between landlord and tenant unless he were certified to be competent so to act by the Land Commissioners, who should, on or before that day, issue such certificates to such persons as should be competent, in their judgment, so to act. It was also proposed, in the procedure clause of Lord VERNON's Bill, that in lieu of the sub-section of the Agricultural Holdings Act which allowed either party to obtain the appointment of an umpire by the Land Commissioners or the County Court Judge, it should be obligatory in all cases for the Land Commissioners to appoint the umpire. If that course were followed, it would, he believed, do away entirely with the necessity for any appeal. He knew of no one single case in which there had been an appeal under the Agricultural Holdings

Act, to the County Court Judge, during the whole eight years the Act had been in operation. Therefore, it seemed to him that the right of appeal to the County Court might be dispensed with, especially with well-qualified men as umpires, appointed in the manner suggested by Lord VERNON.

With reference to the question of drainage, he would like to ask how long was the charge of 5 per cent. per annum to go on? Was it to be for a single year, or 10 years or 20 years? Was it to go on for the whole of the tenancy? Supposing it were a yearly tenancy, was it to stop at the end of the first year or to go on *de anno in annum?* He thought there should be some limit. If the Act were intended to prescribe a charge of 5 per cent. on the outlay, it must be for some specified time. He observed that Mr. FOWLER had, in his letter, taken 20 years as being the period, but there was not a single word in this Bill which said anything about 20 years or any other limit of time. All the outgoing tenant would have to receive was the value of the drainage to the incomer, and if the outgoer did not understand draining, and had made a mess of it, and it were of no value to the incomer, he would not get a sixpence for it.

He was of opinion that Clause 5 was really the clause under which almost all the hard work of the Act would fall—"Where in the case of a tenancy under a contract of tenancy beginning after the commencement of this Act, any particular agreement in writing"—and he begged to emphasize the word "particular"—"secures to the tenant for any improvement mentioned in the third part of the schedule hereto, and executed after the commencement of this Act fair and reasonable compensation, then in such case the compensation in respect of such improvement shall be payable in pursuance of the particular agreement, and shall

be deemed to be substituted for compensation under this Act." As he read that clause the first questions that occurred to him were, what was "fair and reasonable compensation," and who was to determine what was "fair and reasonable compensation"? Mr. EDWARD CLARKE last Monday made an eloquent speech in which he asked for information on that point. It seemed to be the idea of many people that there should be a special tribunal set up to determine what was "fair and reasonable compensation." He differed entirely from the suggestion. He believed Her Majesty's Government, in settling that clause, had done it with their eyes open, and had advisedly left the determination of the fact whether a particular agreement did or did not provide "fair and reasonable compensation," to the ordinary tribunals of the country. It was argued by the more advanced supporters of the tenant's claims that, in making a particular agreement, the landlord had always the best of the tenant, and could almost make a poor tenant do anything he liked. He imagined that even if the landlord made an agreement compelling the tenant to accept an insignificant sum for his improvements, the tenant might, notwithstanding that agreement, when he quitted, bring an action under this Bill against the landlord for compensation under the Act. The landlord would then put in a statement of defence, alleging that the agreed compensation was fair and reasonable—a question which would be left to a jury to decide. He did not wish it to be supposed that he was stating that every tenant-farmer who entered into such an agreement would bring an action against his landlord. He was only taking an extreme case and illustrating how the matter would be decided if the parties were at arm's length.

He would like to add a word with reference to Mr. GILSON MARTIN's observation as to the law of distress, that "he could not see how it was possible, under the

provisions of the Bill, to distrain for more than nine months' arrears," because "a distress could not be levied on the 25th March, and on the 26th it would be out of Court. If his contention were correct, the point was one of great importance." He (Mr. DRUCE) had considered the point, and must say that he thought Mr. MARTIN had put a wrong construction on those words. The whole pith of the thing lay in the words "become due." Rent was not due until 12 o'clock on the night of the day on which it was payable, *i.e.*, assuming a yearly rent to be payable on the 25th March, it did not become due and payable until 12 o'clock at night on the 25th March, and it could not, at present, be distrained for until after sun-rise on the morning of the 26th. Assuming the rent to be payable yearly, at Lady-day, and to become due at 12 o'clock at night on the 25th of March, 1883, that year's rent could under the Bill be distrained for at any time during the next current year, *i.e.*, up to the 25th March, 1884.

SEVERAL MEMBERS dissenting, Mr. DRUCE explained that he was simply taking a case of rent becoming due once a year, but that the principal was the same whenever the rent became due.

THE PRESIDENT said that what he understood Mr. GILSON MARTIN to mean was, that one could not distrain for rent after the tenancy had expired. As it did not become due until the tenancy expired, how could it be distrained for?

Mr. DRUCE (continuing) agreed that a distraint could not be levied after a tenancy had expired; but a prudent agent always took care that the last quarter's rent, or half-year's rent, became payable a month, or some other stated time, before the end of the term. A well-

drawn lease always contained a provision of the kind.

Lastly, as to the "sitting" tenant. It was to be observed, in the first place, that this Bill was very strong against the "sitting" tenant. It appeared to him a remarkable fact, but it was the fact, that the words "on quitting the holding" did not occur in the Agricultural Holdings Act; the words there were, that a tenant should be entitled to compensation "on the determination of his tenancy." The present Bill contained both expressions, and, on first reading them, he had come to the conclusion that the one phrase or the other was superfluous, for if what was wanted was to define the position of the tenant who should obtain compensation, it appeared to him sufficient to say, as the Agricultural Holdings Act said, that a tenant should obtain compensation "on the determination of his tenancy" or "on quitting his holding"; but the words of this Bill were "on quitting his holding at the determination of his tenancy," and, therefore, it seemed to be the intention of Her Majesty's Government to limit this Bill to the quitting tenant. Leave out the words "on quitting his holding," and he failed to see why the Bill should not apply to the sitting tenant as well as to the quitting tenant, for this simple reason, that if either of the parties to a contract of tenancy imported into it new terms, be the terms the increase of rent or the decrease of rent, or any other change, he apprehended that the tenancy, as it existed under the original contract, had determined in law, and a new tenancy at a new rent, or under new conditions, at once commenced. If this Bill had simply said, as the Agricultural Holdings Act did, that a tenant at the determination of his tenancy could obtain compensation then, although he remained, nevertheless, as his tenancy under which he originally held determined, and the new tenancy commenced, he could obtain compensation from his land-

lord. The question was, how could the rights of the parties be made clear if it were the wish, as it was of many parties, that the "sitting" tenant should be secured for his improvements? It seemed to him that the way in which it could be done was, before the new tenancy commenced, that valuers should, as Mr. SQUAREY put it, determine how much of the increased value, assuming it to be increased, was attributable to the ordinary circumstances of the time, and how much to the improvements which the tenant had made. Assuming a portion to be attributable to the tenant's improvements, then the law should allow the tenant to receive compensation for that portion (just as if he were leaving his holding), or an equivalent in the form of an abatement of rent, and he confessed that, under such an arrangement, he failed to see that there was any risk of dual ownership.

Mr. P. D. TUCKETT (Fellow) said that having read a Paper connected with this subject, and having last year given evidence before the Committee of the House of Commons on distress for rent, there were some points on which he wished to say a few words. He supposed the time had gone by for discussing whether such a Bill were wanted, as it appeared to be understood that there was to be one; but he could not give up his own conviction that any interference in this country with perfect freedom of contract would be attended with considerable practical evils.

He believed that to make the legal presumption perfectly just as between landlord and tenant, in the absence of any special agreement, was an object well worthy of legislative effort, and until the Act of 1875, there had certainly been presumptions in favour of the landlord which were not just, and the Act of 1875 had really done material service in removing them. But he believed that interference with

the power of making a special contract in accordance with the special circumstances of each case, and of the particular persons concerned, would be found to lead to mischievous results. If compulsory legislation were to be advocated on broad grounds of national interest in relation to food supply, it should be carefully considered how it would affect the expenditure of landlords' as well as the expenditure of tenants' capital; and he had a strong conviction that in this country a vast deal more of landlords' capital than of tenants' capital was spent in improvements, and that there was great danger of stopping the expenditure of landlords' capital in order to promote the expenditure of a much smaller amount of tenants' capital. This danger arose from the impossibility of getting at the true facts about past expenditure, and the inevitable mixing up of the results of landlords' and tenants' outlay, with the great practical advantage, in all cases of doubt, possessed by the man who has lived on the spot. If landlords found that the results of their own expenditure were liable afterwards to be claimed as tenants' property, it might prevent their laying out money on English estates, and tend to bring the latter nearer to the present condition of estates in Ireland, where it would not be thought a safe investment for a landlord to spend money on improving his own estate for his tenants. A compulsory Act was also calculated to discourage the granting of leases, and it would have been good policy to give power to contract out of it in the case of leases for 14 or more years.

He had been much struck with the results of an absence of actual experience of practical detail, combined with great scientific attainment, in some recent correspondence and speeches. That excellent nobleman the late Lord VERNON, whose opinion was so much and deservedly respected, used to dwell very much on the necessity of having a higher class

of men as tenant-right valuers, and at the same time he used to speak of the necessity of their going to look at the crops at several different seasons during the last year or two of a tenancy before valuing. But even now the chief difficulty of getting good valuers was that farmers were seldom willing to pay enough to remunerate a professional man of any position; how, then, could better valuers be obtained if three or four times as much of their time as at present were occupied in the work? Again, in reading some of the recent published correspondence and discussions, one would think that questions of several thousand pounds were proposed to be dealt with in one item for some great improvements, which would pay for scientific accuracy in ascertaining and determining every fact and principle involved; whereas those who dealt with those things from day to day knew that in the vast majority of cases the single items would be very small, and that the great difficulty would be to ascertain the truth about them at all, and especially without incurring too much expense. For instance, a farmer would not generally have drained a whole farm, or even a whole field. If he claimed £100 for draining he would say he had put a few drains in wet places in each of a dozen fields, and it would be almost impossible to verify the facts years afterwards.

A good deal was being written just now about the raising of rent on the improvements effected by the "sitting" tenant, as he was called, and some previous speakers had discussed him. It seemed to him that if a landlord proposed to raise a tenant's rent in consequence of his own improvements, the tenant would naturally require the landlord first to give him a notice to quit, and having once done so, he (or the incoming tenant) would become liable to pay tenant-right for the improvements, and the knowledge of such liability would affect the rent which an incoming tenant would be willing to pay, and consequently the desire of the landlord for a change.

For if it were alleged that a tenant would rather pay a higher rent than move, though the increased rent was due to an improvement for which he would be paid on leaving, it must follow that a tenant who had made no such improvement would equally pay a higher rent rather than move, and the demand thus became simply one to have a fair rent judicially fixed in all cases. The suggestion was singularly contrary to the fact, according to the experience of the last five or ten years, whatever may have been the case fifteen or twenty years ago.

As regards the particular provisions of this Bill, it might be within the recollection of some gentlemen present that in a Paper he wrote last year he suggested that the Agricultural Holdings Act of 1875 was, on the whole, a good and useful measure, but that its usefulness was interfered with by its procedure clauses. He could never understand why a complete new procedure was wanted. A crop of wheat sown by an outgoing Lady-day tenant, or a crop of roots by a Michaelmas tenant, with hay, straw, and other things, involved more property to be valued than the improvements contemplated by these Acts were likely often to amount to, and all this had always been done easily enough by voluntary valuation. Why? Because the courts of law would compel payment in case of necessity, and that, in practice, was found sufficient. Now it was proposed to have a brand new procedure with appointments within stated times, and appeals to county courts in remote places on particular days, when it might be very difficult to attend. He feared all this would be liable to occasion a great deal of trouble and needless expense. One new thing, and one only, so far as he could see, had been wanted in the way of procedure, and that was an easier method of getting umpires appointed when valuers refused to agree on one, than was afforded by the Common Law Procedure Act,

and he thought if the Land Commissioners had the power to appoint an umpire in all such cases, that would be all that was wanted. In the present Bill the procedure of the Act of 1875 seemed to have been adopted, but he was sorry to see that those who drew the present Bill had not also adopted the schedules of the older Act, which he had always considered a thoroughly well-thought-out and valuable part of it.

The point on which he thought this Bill more open to criticism was the entire absence of any limit as to the time after which the various classes of improvement should be deemed exhausted. In his judgment, it was not fair to valuers, as a class, to place such an unlimited responsibility upon them. It was one that they could not satisfactorily deal with, without some assistance by a maximum of time. He admitted, when an improvement was thoroughly well executed, it was very difficult for the best valuer to judge of, or even ascertain, with any certainty what was done on a farm some years before. The outgoing tenant was in possession, and he and his labourers and friends would give a glowing account of the improvements, and a very gloomy one of the previous condition; whilst the incoming tenant, and probably the landlord also, would know nothing about the facts. Again, suppose on entering a tenant paid for recent draining and left again 10 years later, was it likely he would admit that the drainage had deteriorated in that time, or that he would be willing to accept less than he had paid, if the law left it open to the valuers to give him as much? And how could any one prove the fact, or exactly how much it had deteriorated? and yet, it is a matter of general experience that drainage does get less and less effective as years go by, and is not really permanent, though, if well executed, it will last a great many years. He feared that a local valuer would not stand well with tenant-farmers, or get much

business, if he took upon himself to refuse without a very obvious reason what the law gave him full authority to allow; and thus a burden would gradually be accumulated which would have to be wiped off at the expense of the landlord, as that of the Surrey custom has so frequently been. He would venture on one practical suggestion, viz., that it would be a great improvement if the three schedules of the Act of 1875 could be retained in this Bill, with the exception of removing draining from the first schedule to the second, putting the limit of time for drainage only at 20 years, and for all other improvements in the second schedule at some shorter term.

It would be remembered that all the improvements in the second schedule of the old Act required notice to be given to the landlord, and that they could not be proceeded with after a notice to quit had been given; and also that the limit of time for the second schedule under the old Act was seven years, and for the third schedule two years. It seemed a startling thing that an outgoing tenant should be able to claim for having marled or chalked land ten years before, having given no notice at the time and all possibility of independent evidence of what was really done being lost. He did not quite agree with some previous speakers that draining should be placed in the first schedule, because if one thing more than another was needful to good farming it was the draining of wet land; but he thought it was a very dangerous principle to give the tenant a right of charging a farm with the value of drainage, without limiting it to some maximum number of years; and as to marling, chalking, and other costly operations, as well as in the case of ordinary manurings, he thought it was very important to fix a limit of time further than which no such claim should be carried back; otherwise no previous enquiry could

ever show what claims might have to be met, and it would present a very awkward feature in valuing estates either for purchase or for mortgage, when it would not be to the interest of either landlord or tenant to give information. Possibly this subject might yet be further considered when the Bill got into Committee.

Now, turning to a few details, he was sorry to notice that in Clause 7 there were left out two very excellent provisions, as to the particulars to be stated in the award, which were in the old Bill, viz., the original cost of the improvement and its duration. These, he thought, formed a very excellent check on the *bona fides* of the whole thing, and he did not see how they could do anyone any harm.

As to the year's notice to quit provided in all cases of existing agreements by Clause 11, this practical question occurred to him. If, at a rent audit in November next, a Michaelmas tenant, who was now by written agreement entitled to give six months' notice to quit, asked for something that had to be refused, and in consequence gave a notice to quit before the 31st of December, would it be a good notice? After the Act came into operation on the 1st January, nothing less than twelve months' notice would be good, but how would the Act apply to a tenancy with a six months' notice ending at the time of the commencement of the Act?

Clause 12 seemed a little unnecessarily elaborate in giving the landlord the option of taking the fixtures at a valuation before a tenant could remove them, because it was the best thing that could happen to anyone to get valuation price for fixtures, and a simple enactment making them removable like trade fixtures would have answered every purpose.

Mr. DRUCE remarked that the Clause was identical with Clause 53 of the Agricultural Holdings Act, 1875.

Mr. TUCKETT replied that he believed that was true. The change did not say when a tenant might remove fixtures, but he supposed only whilst lawfully in possession, as in the case of trade or house fixtures. A right to re-enter and remove after the tenancy had ceased would be very inconvenient.

As to distress for rent, no one could be surprised that it was proposed to limit it to one year, because the Committee of last year reported in favour of one year. But he still thought that two years would have been the right limit, as in the case of tithe rent-charge. One year would be very hard on some small farmers who might meet with some temporary loss, because, where rent was received quarterly and three months delay was allowed before each half-yearly audit, it would now be necessary, in case of failure to pay one half-year's rent, to distrain before the second rent audit; and also having regard to the long time it took to prosecute an action for ejectment, two years seemed to be the reasonable and proper limit.

Then, as regarded the exemption of stock taken in on agistment, that provision was very right in principle if fraud could be avoided; but if one of two innocent people must suffer through the fraud of a third, surely it ought to be the one who voluntarily brought his stock on to another man's farm, and not the landlord who never let the farm for such a purpose. As he ventured to point out to the Committee last year, some greater precautions against fraud were needed, or it would be found when a man was likely to be distrained on, that the stock on the farm was claimed as belonging to his father or father-in-law, or some other relation

or friend, and the law of distress might almost as well be abolished. He had ventured to suggest to the Committee that only where keeping had been let by public auction should agisted stock be exempted from distress. At any rate, it surely ought to be enacted that no live or dead stock on a farm which had ever been the property of a tenant of that farm should be capable of exemption from distress on any allegation that it had ceased to be his property though continuing on the farm.

The exemption of hired agricultural machinery would enable Mr. HOWARD and others to organize a new system of supplying agricultural machinery on credit, by deferred payments, and the opening for fraud, by assignment to friends, and so on, was not so material as in the case of live stock.

By Clause 19, the provisions of an Act of George III. limiting the costs of distress were extended from £20 to £50, and the allowance for a man in possession was raised from 2*s.* 6*d.* to 5*s.* per day. Last year's Committee had questioned him in detail about the costs of distraining, and he had pointed out that in consequence of this Act no distress under £20 could be levied without cost to the landlord, because the charge for the levy was limited to 3*s.*, which no broker could be found to accept, and because a respectable man could not be put in possession at 2*s.* 6*d.* a day. This Bill corrected the second grievance, but probably, by some accident, overlooked the first. The charge for the levy ought to be raised to 5 per cent. on the amount. That would not come to too much for the work and responsibility upon £20, or even on £50, and if it were not done, an existing grievance would be extended from £20 cases up to £50. This point had been noticed by Mr. REX.

By Clause 20, the Bill abolished the two appraisements

by two other licensed valuers. He was asked by the Committee how the cost of distraining could be reduced, and it was his suggestion that these two appraisements did not really afford the protection to the tenant for which they were originally intended and might very well be saved. But he had added that the distraining broker should be required to deliver to the tenant a schedule of the things taken, with his own estimate of their value, which he might be required to do without extra charge beyond the 5 per cent. for the levy. But this precaution had been overlooked in the Bill, and hence arose the defect to which Mr. Rex had alluded,—that the tenant would be deprived of the opportunity of getting some friend to purchase the goods at some known price. Probably the two points he had last named would be amended in Committee.

As the whole of this Bill only applied to agricultural tenancies, it appeared that in future the regulations about levying distress for rent would differ according to the nature of the holding, which would introduce another complexity into the state of the law, likely in some cases to lead to difficulty, as there were, no doubt, cases of land held with a house as to which it must remain in doubt whether this Act would apply or not, and, therefore, whether the goods must be sold in 5 days or 15 days, and whether appraisements will be needed or not.

He very cordially agreed with what The President had put into his abstract, that an Act like this, which was going to be in the hands of many people in the country who were not lawyers, certainly ought to be complete in itself, and not refer to portions of another Act. He supposed this was a short way of drawing a Bill to avoid unnecessary discussion in Committee, but he hoped that at a later stage all clauses of the Act of 1875 that were going

to be retained would be printed in the new Bill itself, and the Act of 1875 wholly repealed.

It showed how much this Bill had been copied from the Act of 1875, that in Clause 29 the Land Commissioners were called the "Inclosure Commissioners," although their title had been changed in the interval by another Act of Parliament.

Mr. R. W. Mann (Fellow) feared that the Bill would lay the foundation of a good deal of litigation in the future, unless indeed there were an addition to it that men of sane mind and full age might make their own agreements, notwithstanding the Act.

Like Mr. Edward Clarke, he could not see how "fair and reasonable compensation" could be assessed in a way likely to be satisfactory to both parties. It was a mere phrase, and afforded no basis to work upon.

Again, how was it possible to estimate the value of drainage to the incoming tenant. Indeed, the incoming tenant might deny its value altogether, in view of the particular way in which he proposed to cultivate the land. The only way to arrive at a valuation was by considering what was the letting value of the land—in other words, what the incoming tenant would give for it. To attempt to fix what the incoming tenant was to give was to introduce the principle of fair rent. If any interference of the kind were necessary in the case of land, why, as Mr. Watney had said, was it not equally necessary in the case of houses? As a rule, tenants of land did nothing to improve their holdings, but it was a common thing to find tenants of houses improving them considerably, though they had no interest in them beyond a short term. Those who had much to do with house property must have frequently met with cases of great hard-

ship to tenants, who, after laying out large sums of money in improving their dwellings, were called upon to surrender their improvements to the landlord at the expiration of their tenancy; yet no one ever thought of putting in a claim for compensation in a case of the kind, as the assumption was that the tenant acted with his eyes wide open; and the same reasoning applied to tenants of land.

Mr. H. C. Newmarch (Professional Associate) agreed entirely with Mr. Mann in thinking that this Bill was raising a great mountain of litigation between landlord and tenant. He would not attempt to discuss the Bill in detail, but there were one or two points to which he might perhaps refer. He thought that giving the power to the tenant to drain the land against the will of the landlord, and then saddling the landlord with the cost of it, whether it came out of his pocket in a lump sum or was spread over a period of years, was a very great hardship.

As to distress for rent, he agreed with those who had spoken on the point that one year was too little. When rents were payable quarterly and received half-yearly, and where the custom was to give considerable credit, and not to worry the tenant for his Michaelmas rent until after Christmas, or the Lady-day rent till after Midsummer, tenants would be considerably affected by the contemplated change, for the landlord would not be able to do what he had done hitherto, but would be compelled to look more closely after his interests.

Another point that struck him was that on some farms one found a very small amount of distrainable property. During the grassing time, for instance, there was very little to distrain on, so that a landlord might have to take sudden action, or lose his chance of recovery. Great stress was

laid on the position of the tenant-farmer with reference to improvements, but very little regard was had to the landlord's claims in respect of the deterioration of his land by bad farming.

THE PRESIDENT said that it was a difficult business to sum up a discussion of that kind; but he thought he might say that, upon the whole, the Members of the Institution were rather satisfied than dissatisfied with the Bill. They regarded it as a more moderate measure than they had been led to expect, and although many took the view that Mr. FOWLER had taken, namely, that it was an unnecessary Bill which would interfere with dealings between landlord and tenant in connection with landed property, yet, nevertheless, it was undesirable to obstruct its passage through Parliament. By some means or other, things had drifted into a state under which people were not to be allowed in the future to go on as they had done in the past, and he could only hope that future generations would not be much the worse for it.

There was, no doubt, one very great advantage secured under this Bill in the First part of the schedule. Those additions to property which, under all circumstances, were not improvements, although, under some circumstances, such as it might be very desirable for tenants to have, were, under this Bill, not permitted to be made at the landlord's expense except with his consent. That was a very great point gained.

As to draining, he thought, as a whole, that it was the opinion of the most experienced Members of the Institution that it would be as well that the question should be put on the same footing as the improvements named in the First part of the schedule, and that the landlord should have some veto as

to the carrying it out. He could not help thinking that before the Bill passed through Parliament something would be done to protect the landlord in cases of doubtful expediency—cases where perhaps half-a-dozen men would think that draining would be an improvement, and another half-dozen would say it would be no gain whatever.

The "sitting tenant" question had not been so much discussed as might have been expected. He supposed the reason was that the "sitting tenant" was a more difficult man to deal with than had been supposed. He ventured to think that the "sitting tenant" was just as much dealt with under this Bill, as it stood, as the outgoing tenant. He was fully alive to the point raised by Mr. Squarey, that it would be unfair if a landlord might raise the rent on the "sitting tenant's" own improvements. But he (The President) failed to see how a landlord could raise the tenant's rent without first putting an end to the old tenancy by notice to quit, and in that case he was no longer a "sitting tenant," but an outgoing one, and entitled to compensation. Under this Bill, whether intended or not, two interests in land would be created—the landlord's interest, which existed already, and the tenant's interest, to the extent to which he had improved the land. He ventured to think that if some of the greatest experts of the Institution were asked to determine what, in many cases, was the value to an incoming tenant of improvements which an outgoing tenant had made in the land, a question would have been put to them which, for the first time in their lives, they could not satisfactorily answer.

An improvement which was only due to good farming was not one that belonged to the tenant, because the only conditions upon which the landlord consented to let him the land were, that it should be cultivated according to the

rules of good husbandry. The natural fertility of some soils was such that under grateful treatment they were always improving. But the tenant should not be entitled to claim for improvement unless he had done something in accordance with the rules of good husbandry over and above the ordinary operations of his business, which had given him some benefit in the land, which the land would not have possessed if he had not done it. He had been almost laughed at in that room for sometimes saying a word in defence of Surrey custom, but the Surrey custom provided for some of the matters dealt with in the Bill. For instance, it was a part of the custom of Surrey, that for such operations of husbandry as an incoming tenant was required to pay for on entering a farm, he should be entitled to charge when he quitted.

If, during the last four years of his lease, a tenant farmed badly, the land ran down in condition; although the tenant might get as much profit by that system of management as he would do if he farmed highly and did not get paid for acts from which he had not derived full benefit. If, for example, he put dressing on the land the benefits of which would not be exhausted until two straw crops had been taken, and he had only taken one, there remained an act of husbandry which belonged to the tenant. In this Bill there was not a single word in reference to the various customs of the country, except the provision that where any custom existed the Bill should not apply.

In such a case as that in which land had been marled at the expense of the tenant and improvement had accrued for which the tenant had not had the full benefit, it was right that he should get consideration from the incoming tenant. But in dealing with the question under the provisions of an Act of Parliament instead of by agreement or lease, the door was

opened for fraud, and he had not the slightest doubt that a very large number of fictitious claims for improvements would be preferred if the Bill passed.

As to the "sitting tenant," he failed to see that he was not provided for. If he continued a "sitting tenant," he continued to enjoy the full profit of the money he had sunk in the land. If he quitted his farm and went into another, he would have to pay to about the same extent as he would have to receive from his own. But, unless he went into a farm which was unimproved by tenant's outlay he would not be able to keep the money in his pocket, and he might not be as well off as he was on the one which it was assumed his skill and capital had so much improved. There was nothing wanted from Parliament to provide for a supposed omission in respect of the "sitting tenant." While he continued in occupation he had the full benefit of his outlay, and if his landlord wished to raise his rent he must first put an end to the tenancy. He would then have the landlord at his mercy.

Referring to the arbitrator who would be employed under the Bill, and to Mr. Tuckett's remarks thereon, it was quite true that they would not be able to get Mr. Tuckett to make valuations at the price referred to, and he thought it would be found that the employment of valuers would be so expensive for comparatively small results that one side would be afraid and the other would not dare to employ them. He believed that the result of the passing of this Bill would be that a portion of the landowners of this country would in future farm their own lands, and it would not be so good for the country that they should do so, because they would be content if they made a profit equivalent to the rent which they now received, plus the amount which they would have to pay their bailiffs for carrying on the business. He knew

of one landowner who was educating his son with the express view that he was going to farm his own land. He hoped the umpire question would not be confused with the appointment of arbitrators. Provision should be made for the appointment of an umpire where arbitration failed to do so. He did not think the Common Law Procedure Act would apply. He had had a case, in his own practice, within the last two years in which he had been unable to get an umpire appointed, and he could not see a way through the Common Law Procedure Act that would remove the difficulty. In that case a lease expressly provided for the appointment of two arbitrators, and that they should appoint an umpire.

A proposal had been made, but he (The President) would enquire, why? that the Land Commissioners of England should appoint these umpires. He (The President) spoke perfectly disinterestedly, for the present was the last time that he would have the opportunity of speaking as the President of that Institution. Nevertheless, he could but feel that a future President would have much better opportunities of selecting an umpire than the future Land Commissioners, who indeed might not know as much of the question as the Commissioners at present in office.

Concerning the law of distress, the view of the majority of the Members of the Institution was, that the proposed one year should be made two years, and that it would be a great improvement in the Bill. The provision as to agisted stock and hired machinery would, he feared, lead to fraud if there were no safety-valve provided.

It was within his own experience that the provision which protected a lodger's goods in a house was very much abused. In distraining for rent in a house it was often found that one room in that house was well furnished, and that all the furniture in it belonged to a son or a daughter or

some other relation of the tenant of the house, and that the rest of the house was very badly furnished. There were many other points to which, had time permitted, he should have been glad to refer.

The Meeting then separated.

THE ANNUAL GENERAL MEETING,

Monday, May 28th, 1883.

EDWARD RYDE (PRESIDENT) in the Chair.

Messrs. C. J. MANN and W. L. VERNON having been requested to act as Scrutineers of the ballot for the Election of Council, the balloting list submitted by the Council in accordance with the Bye-laws and the record of attendance of the Members of Council were read, and the ballot declared open.

The Report of the Council on the state of the Institution and the Statement of Receipts and Expenditure for the year 1882 were read.

RESOLVED—"That the Report of the Council and the Balance Sheet be received and approved, and be printed and circulated with the 'Transactions.'"

RESOLVED—"That the thanks of the Institution be given to Messrs. A. GARRARD and R. VIGERS for the efficient performance of their duties as Auditors.

RESOLVED—"That the thanks of the Institution are due and be given to the President, the Vice-Presidents, and the other Members and Associates of Council, for the able manner in which they have administered the affairs of the Institution."

RESOLVED—"That the thanks of the Institution be given to Mr. JOHN WORNHAM PENFOLD (the Honorary Secretary), to Mr. JULIAN C. ROGERS (the Secretary), and other officers of the Institution, for the able manner in which they have executed their several duties."

The President presented the following Prizes won by Candidates in the Professional Examinations 1883:—

THE INSTITUTION PRIZE OF £25.

To WILLIAM GUSTAVUS STANHOPE ROLLESTON, placed first in the Students' Proficiency Examination 1883.

THE SPECIAL PRIZE OF £20.

To CHARLES SATCHELL, placed second in the Students' Proficiency Examination 1883.

THE DRIVER PRIZE OF £25.

To HENRY JOHN TREADWELL, placed first in the Examination (1883) for Non-Student Candidates for the Class of Professional Associates.

The Ballot having been closed, the Scrutineers reported that the following gentlemen had been elected as Council for the ensuing year :—

President.

THOMAS SMITH-WOOLLEY.

Vice-Presidents.

EDWARD I'ANSON
WILLIAM JAMES BEADEL
ELIAS PITTS SQUAREY
ROBERT COLLIER DRIVER

Members of Council.

FRANCIS VIGERS
VIRGOE BUCKLAND
CHARLES JOHN SHOPPEE
THOMAS CHATFEILD CLARKE
DANIEL WATNEY
JAMES MARTIN
WILLIAM FOWLER
HENRY JAMES CASTLE
ROBERT LAKE COBB
ALEXANDER MILNE DUNLOP
CHRISTOPHER OAKLEY.

Professional Associate of Council.

HON. CECIL THOMAS PARKER.

Associates of Council.

FREDERICK MEADOWS WHITE, Q.C.

SIR FREDERICK JOSEPH BRAMWELL, F.R.S.

RESOLVED—"That the thanks of the Meeting be given to Messrs. C. J. MANN and W. L. VERNON for their services as Scrutineers."

A vote of thanks to the President for his conduct in the Chair having been passed unanimously, the Meeting separated.

THE FIFTEENTH
ANNUAL REPORT OF THE COUNCIL.

Annual General Meeting, May 28th, 1883.

The past year has witnessed the completion of a long series of important steps in the development of the Institution, and the commencement of what may be regarded as its permanent conditions of existence. The time will, therefore, be opportune for a brief review of what has been accomplished during the last 15 years. In this brief period the Institution has grown into a body comprising nearly 1,000 Members, representing every branch of Surveyor's practice, and including among the Associates' Class many eminent members of the kindred professions. Seven years after its foundation it had already achieved a position of sufficient prominence to secure it recognition in an important Act of Parliament, and six years later obtained a Charter of Incorporation, conferring important privileges on its Members. The grant of the Charter was preceded by the introduction, and followed by the development of a system of Professional Examinations which has found favour with the Profession, and which bids fair to powerfully influence the future of the Institution and the status of the general body of Surveyors.

During these 15 years the Institution has accumulated an estate out of surplus resources valued at nearly £14,000; has provided itself with a suitable house; has got together a Library, rich in a class of works specially useful to Surveyors, and has published 15 volumes of "Transactions," forming a valuable storehouse of professional information. These are results which will be regarded with just pride by the Members, and which warrant a sanguine forecast of the future of the Institution.

Some of the steps enumerated have involved the adoption of arrangements not contemplated in the original constitution of the Society, but care has been taken to keep any necessary changes within the narrowest limits consistent with the express provisions of the Charter.

The new By-laws were the subject of very anxious consideration by the Council, both in view of their intrinsic

importance and of the cost and difficulty attending their modification when once passed by the Privy Council. The task of preparing them was complicated by the necessity for making provision for a prospective as well as for a present state of things. The arrangements for effecting these objects need not be described in the Report, as they are now familiar to the Members who have studied the new By-Laws.

One of the first duties of the Council, after the confirmation of the By-Laws, was to carry out the division of the general class of Associates into the two classes of Professional and non-Professional Associates, as required by the Charter. Careful consideration was given to the case of each Associate, and the Council are glad to state that the task was accomplished without causing dissatisfaction to anyone concerned.

The sub-division of the Associate Class seemed to make it desirable to provide for the separate representation of the Professional Associates on the Council. Provisions for the purpose were accordingly introduced into the new By-Laws, and have been given effect to in the election which takes place to-day.

The Common Seal of the Institution, executed from a design furnished by a special Committee of the Council, has now been received from Messrs. Wyon, to whom its preparation was entrusted, and will, it is hoped, meet with the approval of the Members.

The Council think it right to call the attention of Members to the fact that the Charter and By-Laws make joint provision for the renewal, at the commencement of each year, of the Diploma-Certificate, in the form of a notification coinciding with the receipt for the year's subscription. Attention may also be called to the By-Laws relating to the forfeiture and cancellation of Diploma-Certificates. These are safeguards which, while in no way diminishing the value of the Diploma-Certificate to the general body of Members, will enable the Council to protect the Institution against abuse of its privileges.

It will be observed that a considerable sum of money has been spent upon the premises during the year. The Council being bound, under the covenants of the lease, to execute extensive internal repairs, took the opportunity of re-decorating the principal rooms, and of remedying some acoustic defects in the Lecture Hall. No further expenditure

of the kind will, it is believed, be needed for some years to come.

As the Examinations have been so fully dealt with in a recent Statement* prepared by the Secretary for the information of the Members, it is unnecessary to do more than glance at them in this Report. The results have been such as to encourage the Council in the belief that the system is well adapted for the ends in view and is likely to meet with increasing success from year to year.

The Council take the opportunity of acknowledging their obligation to those Members and Associates who have undertaken the arduous duties of Examiners. It would be invidious to single out any one of these gentlemen for special mention, where all have given their services so ungrudgingly. There are others, however, who have acted as Honorary Examiners, though unconnected with the Institution, whose names should find a place in this Report. They are Professor W. Fream, of Downton, Mr. Warrington Smyth, F.R.S., Mr. A. Gunn, of the Metropolitan Board of Works, and Mr. P. Gordon Smith, of the Local Government Board.

Since the date of the last Report 1 Honorary Member, 70 Fellows, 70 Professional Associates, and 13 Associates have been elected, representing, with Students, 177 of all classes. From this number have to be deducted two Members who have resigned and eight who have died during the year, leaving a net increase of 167 of all classes. There are now 13 Honorary Members, 644 Fellows, 218 Professional Associates, 74 Associates, and 38 Students.

Several old and esteemed Members of the Institution have died during the year, among whom may be mentioned Mr. J. Collier, Mr. J. Brown, Mr. F. F. Fox, Mr. F. G. Eiloart and Mr. W. Snooke, who were among its earliest Members. The Institution has lost, by the death of Mr. W. H. Harrison, Q.C., one of its most distinguished Associates, and by that of Lord Vernon (whose election took place a few days before his decease), one who took great interest in the profession, and was most desirous of promoting its welfare. Obituary notices of these and other Members are published as an appendix to this Report.

The Balance Sheet shows an increase in the receipts

* *See* Vol. XV., page 325.

from all sources commensurate with the growth of the Institution during the year. The expenditure, as compared with the previous year, has, it will be seen, been swelled by the sum spent in the repairs and redecorations already referred to.

The Balance Sheet for the year ending Dec. 31st, 1882, shows the following results :—

Receipts.	£	s.	d.	Expenditure.	£	s.	d.
Total Revenue . . .	2,531	10	0	Total Payments out of Revenue, Current Expenses	1,883	19	9
Revenue Balance in hand, January 1st, 1882	186	7	2	Transferred to Capital	655	0	0
Entrance Fees and Life Compositions carried to Capital	862	0	0	Revenue Balance in hand, December 31st, 1882	178	17	5
Interest	7	16	4	Total Payments out of Revenue, Furniture and Fittings . . .	64	15	0
Transferred from Revenue	655	0	0	Invested	1,405	8	6
Capital Balance in hand, January 1st, 1882 .	175	0	2	Capital Balance in hand, December 31st, 1882	249	12	11
	£4,437	13	8		£4,437	13	8

In addition to the above Cash Balances, Stock to the amount of £770 6*s.* 6*d.* Consols, £721 9*s.* 5*d.* New Three per Cents (of which £100 is invested in the Library Account), £200 in North British Railway Preference Stock (on account of the Crawter bequest), and £1,000 in Exchequer Bills.

A summary of the Receipts and Expenditure for the present year, up to this date, is as follows :—

Receipts.	£	s.	d.	Expenditure.	£	s.	d.
Total Revenue . . .	2,206	5	5	Payments out of Revenue, Current Expenses	2,309	0	3
Revenue Balance in hand, January 1st, 1883 .	158	17	5	Revenue Balance in hand, May 27th, 1883 . .	56	2	7
Entrance Fees . . .	405	6	0	Investments	400	0	0
Interest	3	17	10	Capital Balance in hand, May 27th, 1883 . .	258	16	9
Capital Balance in hand, January 1st, 1883 .	249	12	11				
	£3,023	19	7		£3,023	19	7

In addition to the above cash balances the amount of Stock now invested in Consols is £770 6*s.* 6*d.*; in New

Three per Cents., £721 9*s.* 5*d.*; in North British Railway Preference Stock, £200; in Exchequer Bills, £1,000; and on deposit with London and Westminster Bank, £1,250.

The Library Balance in hand is, in addition to the £100 invested in New Three per Cents, £482 3*s.* 8*d.*

It is proposed to transfer the Stock standing in the names of various groups of former Trustees (an office which has become extinct under the Charter) into the name of the Corporation.

The total liabilities for rent, rates, printing, and current expenses amount to about £50.

The attention of the Council has been directed during the year to certain features of the General Order made under the Solicitors' Remuneration Act, 1881, held likely to effect inter-relations of long standing between Surveyors, Solicitors, and their mutual clients; and the Council, in response to an invitation from the Incorporated Law Society, made a representation to the Council of that body deprecating, alike on public and professional grounds, any departure from well-established usage. The matter is now under consideration by the authorities constituted by the Act.

Several valuable Papers, on which interesting discussions have taken place, have been read during the Session.

The introduction of a Tenants' Compensation Bill by the Government has been long anticipated, as the natural outcome of the Report of the Royal Commission on Agriculture. Owing to the magnitude of the interests involved, interests in which Surveyors are peculiarly concerned, the publication of the Bill has been awaited with some anxiety, and the Council made arrangements for its discussion at the earliest possible moment.

In conclusion, the Council tender their thanks to the Members for their unwavering support, which has greatly encouraged them in their labours, and without which much that has been done would have remained unaccomplished.

Dr. STATEMENT OF RECEIPTS AND EXPENDITU

REVENU

RECEIPTS.

	£ s. d.	£ s. d.	£ s. d.
1882			
419 Fellows' Subscriptions for 1882, at £3 3s.	1,319 17 0		
3 " " part paid	6 3 0		
		1,326 0 0	
201 Associates' Subscriptions for 1882, at £2 2s. 0d.		422 2 0	
25 Students' " " " " £1 1s. 0d.		26 5 0	
			1,774 7
Hire of Arbitration Rooms			716 14
Dividends			38 6
Cash in hands of Treasurer and Secretary, January 1st, 1882			188 7
			£3,717 17

CAPITAI

	£ s. d.	£ s. d.	£ s. d.
108 New Fellows' Entrance Fees, at £5 5s. 0d.	540 15 0		
11 Fellows' Entrance Fees, Balance on Transfer, £2 2s. 0d.	23 2 0		
3 " Life Composition Fees	94 10 0		
		658 7 0	
71 New Associates' Entrance Fees, at £3 3s. 0d.		223 13 0	
			882 0
Interest on £200 N.B. Railway Preference Stock (Crawter Bequest)			7 16
Transferred from Revenue			655 0
Balance in hands of Treasurer, January 1st, 1882			175 0
			£1,719 16

LIBRARY

	£ s. d.
Donations to December 31st, 1882	282 1
Dividends	2 15
Balance in hands of Treasurer, January 1st, 1882	110 14
	£395 12

SU

	£ s. d.
Revenue Account	2,717 17
Capital "	1,719 16
Library "	395 12
	£4,833 1

ASSETS AND

	£ s. d.	£ s. d.
Cash in hands of Treasurer and Secretary		787 1
Value of Furniture and Books		2,589 11
Investments—New Three per Cents.	721 9 5	
" North British Railway Preference Stock	200 0 0	
" Consols	770 6 6	
" Exchequer Bills	1,000 0 0	
On Deposit—London and Westminster Bank	1,250 0 0	
		3,941 15
Subscriptions and Entrance Fees due, but unpaid at date		261 15
Value of Premises, No. 12, Great George Street		6,000 0
Fees for use of Rooms, due but unpaid at date		192 1
		£12,772 15

INSTITUTION.

THE YEAR ENDING DECEMBER 31ST, 1882. Cr.

ACCOUNT.

1882. EXPENDITURE.	£ s. d.	£ s. d.
ent	244 15 10	
nsurance, Rates, and Taxes	116 9 7	
ual, Light, and Water	42 16 0	
		404 1 5
epairs	.. ..	268 6 2
tationery, Postage and Receipt Stamps, Books of Account, Publications, &c... ..	.. ..	125 12 6½
alaries and Wages	.. ..	706 15 8½
ousehold Effects, and Housekeeper's Petty Cash Expenses, Tea, Coffee, and Sundry Disbursements		74 5 2
xaminations—Examiners' Fees	15 15 0	
Advertisements	0 16 6	
Printing	20 15 6	
	37 7 0	
Less Sale of Book of Examination Rules	5 2 2	
		32 4 10
ublication of "Transactions"—Printing and Lithography	174 14 6	
Covers and Binding	18 11 11	
Reporting	37 16 0	
	226 2 5	
Less Sale of "Transactions" and Covers	44 5 6	
		181 16 11
eneral Printing	.. ..	90 17 0
ransferred to Capital	.. ..	655 0 0
ash in hands of Secretary, December 31st, 1882	20 0 0	
" " Treasurer " " "	158 17 5	
		178 17 5
		£2,717 17 2

ACCOUNT.

	£ s. d.	£ s. d.
urniture and Fittings	.. ..	64 15 1
urchase of £1,000 0s. 0d. Exchequer Bills	1,005 8 6	
" £398 10s. 1d. New Three per Cents.	400 0 0	
		1,405 8 6
alance in hands of Treasurer, December 31st, 1882	.. ..	249 12 11
		£1,719 16 6

ACCOUNT.

	£ s. d.
urchase of Books and Maps	7 1 2
alance in hands of Treasurer, December 31st, 1882	358 11 4
	£365 12 6

MARY.

	£ s. d.
evenue	2,588 19 9
apital	1,470 3 7
ibrary	7 1 2
alance in hands of Treasurer and Secretary, December 31st, 1882	737 1 8
	£4,803 6 2

IABILITIES.

	£ s. d.
ne Quarter's Rent to Xmas 1882	62 10 0
ual, Housekeeping, and various Accounts	823 2 9
alance	13,897 2 4
	£18,772 15 1

Examined with the Books and Vouchers, and found correct,

ROBERT VIGERS.
ARTHUR GARRARD. } *Auditors.*

18th *May*, 1883.

APPENDIX TO VOL. XV.

Obituary.

HARRY GEORGE BOLAM (Fellow) was born in 1845, at Whitburn, in the County of Durham, and was the third son of the late Wm. Bolam, of Newcastle-upon-Tyne, a gentleman well known and in extensive practice as a Land Agent in that town. After leaving the Pulteney College in Bath, Mr. H. G. Bolam was trained in the Raby Castle Estate Office under his grandfather and uncle, Mr. T. F. and Mr. W. T. Scarth, and obtained in 1875 the appointment of Estate and Mineral Agent to the late Earl of Shrewsbury, which he retained till 1881, when he resigned the Estate Agency, retaining the Mineral Agency up to the time of his death. In 1881 he moved to London, and commenced general practice as a Land Agent and Mining Engineer. In May 1882 Mr. Bolam went out to Colorado on a Mining Survey, and whilst there had a sunstroke, which obliged him to relinquish business. He was attacked with pneumonia in March last, and died on Good Friday at New York from that disease.

JOHN BROWN (Fellow) was born at Stenton, in the County of Haddington, in June 1815, and spent the earlier years of his life in assisting his father, who was engaged in business as a Land Agent at that place. When about 25 years of age, Mr. Brown moved to Derbyshire, where he secured an appointment as Assistant Agent on the

Hardwick Estate. A few years later he became Chief Agent on the Wingerworth Estate, and took up his residence in that parish. He was shortly afterwards appointed Agent for several other Estates, and gradually formed an extensive Land-Agency business. A few years later he removed to Elmton Park, but afterwards purchased Rose Hill, to which he removed in 1851, and continued to reside there up to the time of his death. Mr. Brown took great interest in local affairs at Chesterfield, entering the Town Council in 1863, and being elected Mayor in 1879, an office which he filled for three years in succession, and held at the time of his death. Mr. Brown was elected a Fellow of the Institution in December 1871. His death took place at Rose Hill on May 25th, 1882, in the 67th year of his age.

JOHN COLLIER (Fellow) died on the 3rd June, 1881, at his residence, Wychwood, Putney, in which parish he had lived and taken great interest for many years. Mr. Collier, who was 53 years of age at the time of his death, was elected to the office of Architect to the Salters' Company about 18 years ago, after having been successful in competing for the Surveyorship of their Almshouses, and on the 7th January, 1864, a resolution was passed, printed on vellum, and presented to him, with £150 and the Freedom and Livery of the Company, free of charge, in acknowledgment of his architectural skill. He was also Surveyor to the Watermen's Company, the Parish of St. Mary-at-Hill, Wittenhall's Trust, and the College of Surgeons, an Associate of the Institution of Civil Engineers, and one of the earliest Members of The Surveyors' Institution. Among other works, he was Architect of Old Trinity House, Water Lane, of the Witney Corn Exchange, Asthaby Vicarage and Schools, &c., &c. He also received the second premium for

the London Orphan Asylum at Watford. The last buildings he undertook were the new offices for *The City Press*, in Aldersgate Street.

FERDINAND GOZNA EILOART (Fellow) was born in London in March 1824. At the age of 18 he was articled to W. H. HAMMOND, of 28, Chancery Lane, afterwards entering the office of Messrs. VIGERS, of Frederick's Place, with whom he remained for nearly six years. In 1851 Mr. EILOART went into business for himself at Bedford Row, but a few months later was invited by his old employer, Mr. HAMMOND, to join him in partnership, an offer which he accepted. This business was carried on under the names of HAMMOND AND EILOART for 14 years, at No. 27, Chancery Lane. During these years Mr. EILOART was appointed Assessor to two of the leading Fire Offices in London,—appointments which he continued to hold until his death. In 1872 he was retained by the School Board for London to purchase their sites, and acted for the Board in this capacity for three years, when a permanent Surveyor was appointed upon the staff of the Board. He still continued, however, to appear for the Board in all their principal compensation cases, in which his skill and experience were of great value to his clients. Mr. EILOART held several important agencies, and enjoyed a large general practice as a Surveyor. He died suddenly on the 16th February, 1888, of rupture of the heart.

FREDERICK FRANCIS FOX (Fellow), of Melbourne, near Derby, succeeded his father and great-uncle in the agency of the Derbyshire, Lincolnshire, Nottinghamshire, and Northamptonshire estates owned by Lord MELBOURNE, subsequently by Viscountess PALMERSTON, and at present by Earl COWPER. He was also Agent, for

the 15 years preceding his death, to the estates of Earl FERRERS, in Leicestershire and Staffordshire. Mr. Fox was distinguished for his excellent business qualifications and his high personal character, and few men have been more successful in winning and retaining the regard and confidence of the owners and tenants with whom his business brought him in contact. Mr. Fox was no exception to the rule that the busiest men find the most leisure for extraneous work. He was identified with most of the philanthropic movements of his native town, and took an active part in all local undertakings, aiding them by his advice and presence and by the large and unostentatious charity which was one of his most eminent characteristics. He was elected a Fellow of the Institution in January 1874. For a year before his death Mr. Fox's health began to decline; his death taking place, of apoplexy, on the 24th March last, in the 65th year of his age.

THOMAS MORGAN GEPP (Associate) was the eldest son of the late THOMAS FROST GEPP, Esq., who was formerly for many years in practice as a Solicitor at Chelmsford. He was born in the year 1806, was educated at the Grammar School at Felsted, Essex, and subsequently at the Charterhouse. Mr. GEPP was admitted a Solicitor in 1830, and succeeded his father in the office of Under-Sheriff of Essex in 1832. For many years he held the office of Essex County Treasurer, was Registrar of the Chelmsford County Court, and since 1863 had acted as Registrar of the Archdeaconry of St. Albans. He was also Clerk to the Commissioners of Assessed Land and Income Taxes for the Chelmsford Division, Clerk to the Visitors of the Essex County Lunatic Asylum, Stamp Distributor for the Chelmsford District, a Perpetual Commissioner for Essex, and, until lately, Clerk to

the Commissioners of Sewers for Foulness Level, Dengie Levels, and Fobbing Levels. Upon retiring from the position of Clerk, he was made a Commissioner for Foulness and Dengie Levels. In his private practice as a Solicitor, Mr. GEPP enjoyed the confidence and esteem of a large and important *clientèle*. Mr. GEPP was Agent for many large estates, and Steward of about 35 manors in Essex. He was elected an Associate of the Institution in April 1872. He died at Chelmsford on January 7th, 1883, in the 77th year of his age.

WILLIAM GERMAN (Fellow) was the eldest son of the late Mr. GEORGE GERMAN, of Measham Lodge, Ashby-de-la-Zouch, to whose business he succeeded after his death in 1861.

Mr. GERMAN was Land Agent to the Right Hon. the Earl of LOUDOUN, the Right Hon. Lord BELPER, the Right Hon. Lord DONINGTON, GEORGE MOORE, Esq., the Trustees of the late Sir THOMAS GRESLEY, Bart., and of the late A. E. HOLDEN, Esq., to Major MOWBRAY, J.P., and to Mrs. ROBERTSON, Chilcote, Derbyshire. He was also a farmer on a large scale, occupying over 900 acres of land, and was an extensive and successful breeder of Shropshire sheep. Mr. GERMAN died at the Measham Lodge Farm on the 9th of September, 1882, in the 47th year of his age.

WILLIAM GEORGE HARRISON, Q.C. (Associate) was educated at St. John's College, Cambridge. He took his degree as 18th Wrangler in 1850, entered the same year at the Inner Temple, and was called in Hilary Term, 1853. In 1856 he published, jointly with Mr. G. A. COPE, Jun., a volume on the Companies Acts of that year. Mr. HARRISON went the South-Eastern Circuit, the St. Albans, Essex, and Hertford Sessions. He took silk in 1877, and

was rapidly acquiring a very large and lucrative practice at the time of his death, which took place on Monday, March 5th, 1883, after a short period of acute suffering, in the 56th year of his age.

CHARLES PINK (Fellow) was born at Hambledon, in Hampshire, on September 12th, 1817, and was the second son of the late Mr. RICHARD PINK, of that place. He was educated at Norfolk House School, Southsea, of which his relative the Rev. WM. PRINCE was Principal, and was instructed in his profession by his father and Mr. PARSONS, resident agent on the Fleming Estate. At an early age he was largely employed on tithe surveys, and subsequently on railway surveys, and carried out a large number of inclosures. Mr. PINK was for many years connected, as agent, with the Cranbury, Lockerley, Rooksbury, and other important estates in this and other countries, and was employed from time to time on important compensation cases such as those arising from the fortifications of Portsmouth and Devonport, in which he appeared on behalf of the landowners. In conjunction with his brother he acted for many years as Surveyor to Winchester College. In 1875 he was entrusted with the survey and valuation of the southern half of the New Forest and gave evidence on the subject before a Committee of the House of Commons. Mr. PINK resided for many years at Wood End House, near Fareham, where he carried on his practice until obliged to withdraw from it by illness at the end of 1878. He died on the 20th June, 1883.

WILLIAM SNOOKE (Fellow) was born in the West of England, where he received his education as an Architect and Surveyor. As a young man he was first connected with one of the earliest engineering enterprises of the

day—the line of Railway between Birmingham and Gloucester, in which undertaking he filled the post of Assistant Engineer under Captain MOORSOM and Mr. JOHN HUGHES. He was subsequently for a short time in independent practice as an Architect, at Hereford, but eventually came to London, and was with Mr. FINDON, the Architect to Messrs. HOARE and COMPANY, of Fleet Street. His connection with that gentleman however was but brief, and he ultimately entered the office of Mr. GEORGE ALLEN, Architect and Surveyor, of Tooley Street, Southwark, in whose employment he remained for some time as Manager and principal Assistant.

On Mr. ALLEN's premature decease, in 1847, Mr. SNOOKE (in conjunction with Mr. STOCK, a former pupil) entered into arrangements with his widow for continuing the practice; and he was elected to the appointments of District Surveyor under the Metropolitan Buildings Act, and of Architect and Surveyor to the Haberdashers' Company of the City of London, both of which offices had previously been held by Mr. ALLEN, and which Mr. SNOOKE continued to fill up to the date of his death.

Mr. SNOOKE's opinion and judgment, as a Valuer and Arbitrator in the matter of property acquired under compulsory powers, were well known and appreciated, and he was extensively employed in work of this nature. His death took place in February last, in the 69th year of his age.

THE RIGHT HONOURABLE AUGUSTUS HENRY VENABLES, LORD VERNON Baron of Kinderton, in the peerage of Great Britain (Associate), was the eldest son of GEORGE JOHN, fifth lord, by his wife, ISABELLA CAROLINE, eldest daughter of the late Mr. CUTHBERT ELLISON, of Hebburn, and was born at Rome, in 1829. He

married in 1851 Lady HARRIET ANSON, third daughter of the first Earl of LICHFIELD and succeeded to the Barony on the death of his father in 1866. Lord VERNON will be long remembered for the active part which he took in the relief of the distressed French agriculturists, after the Franco-German war, in 1870; but still more for his connection with the Royal Agricultural Society, in the affairs of which he took the deepest interest, and for his efforts to bring about a settlement of the landlord and tenant question, by means of a Bill which he had drafted and was to have introduced in the House of Lords on the day of his death—an event which was accelerated by his labours in connection with this question. Lord VERNON was elected an Associate of the Institution within a few days of his decease, which took place suddenly, on May 1st, 1883.

LIST OF DONATIONS AND CONTRIBUTIONS TO JUNE 1st, 1883.

DONATIONS OF BOOKS, MAPS, &c.

Donors.	Title of Work.
Agricultural Gazette, Editor of the	"The Agricultural Gazette," 1882–83.
Architect, Editor of the	"The Architect," 1882–83.
Bath and West of England Society	"Journal," 1882–83.
Builder, Editor of the	"The Builder," 1882–83.
Builders' Weekly Reporter, Editor of the	"The Builders' Weekly Reporter," 1882-83.
Building News, Editor of the	"The Building News," 1882–83.
Burrows, A. J.	"The Agricultural Depression, and how to meet it." By A. J. Burrows.
Card, H. C.	"Emlyn's Proposition for a New Order in Architecture.' "Low's Landed Property."
Cresswell, J. T. R.	"Proceedings of the Royal Society," Vols. XXIV. and XXV.
Crosby, Lockwood, & Co.	"Tarbuck's Handbook of House Property."
Denton, J. Bailey	Pamphlets, entitled, "The Theory of Under-Drainage," "Under-Drainage of Land," and "Water Supply in connection with Land Drainage." By J. Bailey Denton.
Dethridge, F.	Handbook "On the Law of Electric Lighting." By A. P. Poley and F. Dethridge.
Estates Gazette, Editor of the	"The Estates Gazette," 1882–83.
Evans, R.	"Records of the Borough of Nottingham." Vol. I., 1155–1399.
Farmers' Club, The	"Journal," 1882–83.
Field, Editor of the	"The Field," 1882–83.
Forestry, Editor of	"Forestry," 1882–83.
Hedges, K.	"Useful Information on Electric Lighting." By Killingworth Hedges.
Horne, W. E.	Sowerby's "Grasses of Great Britain."
Horticulture, Journal of, Editor of the	"Journal of Horticulture," 1882–83.
Humbert, C. F.	"Proceedings of the Geological Society," 1882–83.
Institute of Actuaries	Text Book of the Institute of Actuaries.
Institution of Civil Engineers	"Minutes of Proceedings." Vols. LXVIII., LXIX., LXX., and LXXI.
Institution of Civil Engineers of Ireland	"Transactions," 1882–83
Institution of Mechanical Engineers	"Proceedings," 1882–83.
Iron, Editor of	"Iron," 1883.

Donors.	Title of Work.
Janson, F. H.	"A Tour through Britain," 4 vols., 1742. W. S. Saunders', "Report upon some new Methods of Disposing of all kinds of Refuse by Cremation." "W. S. Saunders', Pamphlet "On the Action of Water upon Lead Pipes." J. F. Fleming's Pamphlet "On Milk Fever in Cows." J. H. Tuke's Pamphlet "On Irish Distress and its Remedies." "Norden's Description of Essex."
Jenkins, W. W.	Sharpe, Johnson, and Kersey's "Churches of the Nene Valley."
Land, The Editor of	"Land," 1882–83, including the Index to the Estate Exchange Registers.
Land Agents' Record, Editor of the	"Land Agents' Record," 1882–83.
Lermit, A. W.	"Macdonald's Estate Management." "Macdonald's Hints on Farming." "Low's Landed Property." "Sinclair's Code of Agriculture." "Curtis's British Grasses." "Land Agents' Record." Vol. I. "Rham's Dictionary of the Farm."
London and Middlesex Archæological Society	"Transactions," 1882–83.
Newbigging, T.	"Newbigging's Handbook for Gas Engineers and Managers."
North of England Institute of Mining and Mechanical Engineers	"Transactions," 1882–83.
Pattisson, J. L.	Griffith's "Instructions to the Valuators and Surveyors, appointed under the Act for the Valuation of Ireland."
Podmore, R. H. B.	"Allen's History of the County of Surrey." 2 vols. 1831.
Royal Agricultural Society of England	"Journal." 1882–83.
Royal Institute of British Architects	"Proceedings," 1882–83.
Sanitary Institute of Great Britain	"Transactions," 1882–83.
Sherlock, C.	J. A. Picton's "Memorials of Liverpool." 2 vols.
Smith, P. G.	"Knight's Annotated Model By-Laws."
Société des Géomètres	"Journal," 1882–83.
Statistical Society	"Journal," 1882–83.
Vigers, E., Jun.	"Londina Illustrata," 2 vols.
Ware, C. E.	W. C. Perry's Greek and Roman Sculpture."
Watson, J.	J. K. Hedge's "History of Wallingford.

CONTRIBUTIONS IN MONEY TO LIBRARY FUND,

From June 1st, 1882, to June 1st, 1883.

	£	s.	d.
Armstrong, T. J.	2	2	0
Bailey, L.	2	2	0
Ballard, E.	2	2	0
Bannister, T.	2	2	0
Bath, F.	2	2	0
Berridge, R.	2	2	0
Bird, J. B.	2	2	0
Birdseye, W.	2	2	0
Blake, W. J., Jun.	2	2	0
Blount, W.	5	0	0
Bradly, W.	2	2	0
Brereton, F. S.	3	3	0
Burbridge, S.	1	1	0
Burnett, D.	2	2	0
Card, H.	2	2	0
Carpenter, E. G.	2	2	0
Cobb, H. M.	2	2	0
Cooper, J. G.	2	2	0
Couchman, C.	3	3	0
Coverdale, H.	1	1	0
Cowgill, W.	2	2	0
Cross, J.	2	2	0
Cross, W. S.	5	5	0
Dann, H.	2	2	0
David, E. U.	2	2	0
Davis, C. J.	2	2	0
Deacon, T. M.	2	2	0
Drew, A.	2	2	0
Edwards, J. F. J.	2	2	0
Egerton, H. D.	2	2	0
Ellis, R. A.	3	3	0
Foster, J. B.	2	2	0
Fowler, F.	3	3	0
Fryer, G.	2	2	0
Fuller, G. J.	2	2	0
Furber, H.	2	2	0
Gardiner, E. J.	2	2	0
Gater, C. W.	2	2	0
German, J.	2	2	0
Gibson, W. M.	2	2	0
Goulding, W. P.	2	2	0
Gurney, H.	2	2	0
Haddock, R.	2	2	0
Hardcastle, F. H. A.	2	2	0
Harrison, W. G.	2	2	0
Heaton, G. H.	2	2	0
Hine, G. E.	2	2	0
Hodson, G.	2	2	0
Holmes, J.	2	2	0
Horsfall, R.	2	2	0
Hovenden, T. H.	2	2	0
Humphreys, H.	3	3	0
Ingleby, H.	3	3	0
Jessett, C.	2	2	0
Jones, J. W.	2	2	0
King, W. D.	2	2	0
Leach, Lieut.-Col. G. A.	5	5	0
Leonard, H. H.	3	3	0
Little, W. C.	2	2	0
Lock, W. H.	2	2	0
Marshall, L. H.	2	2	0
Messenger, W. H.	2	2	0
Millar, C. W.	3	3	0
Milnes, R., Jun.	2	2	0
Mullett, F. A.	2	2	0
Newson, H. C.	2	2	0
Parkin, J. R.	2	2	0
Pickstock, J.	2	2	0
Rawlance, G.	2	2	0
Rawlence, J.	2	2	0
Rigden, C. F.	2	2	0
Robins, E. C.	3	3	0
Robinson, J. T.	2	2	0
Robinson, M. C.	2	2	0
Robinson, N. W.	2	2	0
Sanders, T.	3	3	0
Scriven, C. H.	2	2	0
Sherwin, J. H.	2	2	0
Strudwick, W. H.	2	2	0
Tarrant, W.	2	2	0
Theobald, H.	2	2	0
Thompson, E. J.	2	2	0
Thorpe, C.	2	2	0
Thurgood, H. J.	2	2	0
Trollope, G. F.	2	2	0
Wainwright, C. R.	2	2	0
Walker, H.	2	2	0
Walker, S.	5	5	0
Walmisley, A. T.	2	2	0
Waters, W. R.	2	2	0
Webb, J. M.	2	2	0
Wharton, T. G.	2	2	0
Willmot, J.	2	10	0
Woods, H.	2	2	0
Wreathall, R. T.	2	2	0
Wyatt, O. N.	2	2	0

THE SURVEYORS' INSTITUTION

(Incorporated by Royal Charter),

12, GREAT GEORGE STREET, WESTMINSTER, S.W.

LIST OF MEMBERS, JUNE 1883.

Honorary Members.

Date of Election and of Transfer.		
1874, Apr. 18	BEDFORD, HIS GRACE THE DUKE OF	81 & 82, Eaton Square, S.W.
1880, May 10	BRAND, HENRY BOUVERIE WILLIAM, THE RIGHT HON. . .	Speaker's House, Palace of Westminster, S.W
1878, Nov. 11	BUCAILLE, EUGÈNE	168, Boulevard de Strasbourg, Havre, France.
1875, Mar. 15	CAIRD, SIR JAMES, C.B. . . .	Tithe and Inclosure Commission Office, St. James's Square, S.W.
1877, Jan. 15	CONSTABLE, JOHN, The REV. . .	Marston Bigot, Frome, Somersetshire.
1880, Jan. 5	DERIVRY, MARIE AUGUSTE LOUIS	Noyon, Oise, France.
1880, Jan. 5	GILLET, GEORGES EDOUARD . .	Joinville, Haute-Marne, France.
1871, Jan. 30	GORE, CHARLES ALEXANDER, The HONORABLE	Office of Woods, &c., 1, Whitehall Place.
1868, May 21	HARTINGTON, THE RIGHT HON. THE MARQUIS OF	Devonshire House, Piccadilly, W.
A. '69, Jul. 26 H.M.'71, Feb. 27	LEACH, GEORGE ARCHIBALD, LIEUT.-COLONEL	Tithe and Inclosure Commission Office, St. James's Square, S.W.
1878, Nov. 11	LEFÈVRE, FRANÇOIS ETIENNE .	Sucy, Seine et Oise, France.
A. '68, Jun. 28 H.M.'77, May 14	LLOYD, JOHN HORATIO . . .	100, Lancaster Gate, W.
A. '72, Jan. 15 H.M.'72, Apr. 22	RIDLEY, GEORGE	2, Charles Street, Berkeley Square, W.

Fellows.

Date of Election and of Transfer. The names of those Fellows who have qualified for the Class by Examination are distinguished thus *

1868, Jun. 15	ADAMS, CHARLES FREDERICK .	Barkway, Herts.
1881, Feb. 21	ADDIE, WILLIAM FORRESTER .	30, Winckley Square, Preston.
1872, Dec. 9	APPERLEY, WILLIAM HAVARD .	Hereford.
1869, May 8	ARDING, CHARLES BENNETT. .	22, Surrey Street, Strand, W.C.
1882, Apr. 24	ARMSTRONG, THOMAS JOHN .	14, Hawthorn Terrace, Newcastle-on-Tyne.
1875, Nov. 8	AUSTIN, RUSSELL GARDINER .	The Wash, Hertford.

Date of Election and of Transfer.	FELLOWS.	
1882, May 22	BALLARD, EDMUND	High Street, Ashford, Kent.
1877, Mar. 12	BALLS, JAMES MAYHEW	Castle Hedingham, Essex.
1881, Feb. 7	BANNISTER, THOMAS	Limehurst, Hayward's Heath, Sussex.
1882, Jan. 30	BARFIELD, FREDERIC HENRY	Faringdon, Berks.
1868, Aug. 17	BARRY, CHARLES	1, Westminster Chambers, Victoria Street, S.W.
1882, Feb. 13	BATH, FRED	Crown Chambers, Salisbury, Wilts, and 342, Strand, W.C.
1868, Jun. 15	BEADEL, WILLIAM JAMES (*Vice-President*)	97, Gresham Street, E.C.
1868, Nov. 2	BEAUMONT, GEORGE	East Bridgford, near Nottingham.
1876, Apr. 24	BECKETT, WILLIAM	Oulton Park Farm, near Tarporley, Cheshire.
1879, Jan. 6	BEDELLS, CHARLES KING	6, John Street, Bedford Row, W.C.
1878, Dec. 8	BEESTON, FREDERICK	30, Lincoln's Inn Fields, W.C.
1881, Dec. 19	BELL, GEORGE GRAHAM	11, Pall Mall East, S.W.
1875, Mar. 1	BENNETT, THOMAS OATLEY	Bruton, Somerset.
1881, Dec. 19	BERRIDGE, ROBERT	181, Bishopsgate Street Without, E.C.
1878, Feb. 24	BEWICK, THOMAS JOHN	Haydon Bridge, Northumberland.
1869, Mar. 22	BIDWELL, CHARLES	Ely, Cambridgeshire.
1888, April 2	BIDDELL, WILLIAM, M.P.	Lavenham Hall, Suffolk.
1875, Apr. 12	BINGHAM, REUBEN	5, Bolton Street, Piccadilly, W.
1868, Oct. 26	BINNIE, THOMAS	207, Hope Street, Glasgow.
1868, Aug. 10	BIRD, JAMES BINFIELD	14, Queen Victoria Street, E.C., and West Cowes, Isle of Wight.
1882, Mar. 18	BIRDSEYE, WILLIAM	99, Gresham Street, E.C.
1883, Feb. 12	BLAKE, WILLIAM JOHN, JUN.	21, High Street, Croydon.
1882, Mar. 18	BLAKEMORE, WILLIAM AGUTTER	24, Salisbury Street, Strand, W.C.
1870, Feb. 7	BLOUNT, WILLIAM	Orchehill House, Gerrard's Cross, Bucks.
1874, Feb. 2	BOLAM, CHARLES GODFREY	38, Parliament Street, S.W.
1876, May 8	BOLAM, WILLIAM THOMAS	Cross House, Westgate Road, Newcastle-upon Tyne.
1875, Dec. 13	BOLDEN, JOHN LEONARD	Tehidy Office, Camborne, Cornwall.
1869, May 8	BOND, ERASMUS	22, Surrey Street, Strand, W.C.
1868, Jun. 15	BONNY, JAMES RIPPOTH	Palmer's Hill House, Palmer's Green, Southgate, N., and 47, Old Broad Street, E.C.
1882, May 22	BOOKER, ALGERNON ERSKINE	Albion House, Hyde Park Square, W.
1881, Dec. 19	BOTTERILL, WILLIAM	23, Parliament Street, Hull.
1868 Jul. 18	BOWLER, WILLIAM ANTHONY	5, Museum Street, Ipswich.
1881, Dec. 19	BOYLE, EDWARD	14, Clement's Lane, E.C.
1888, Jan. 29	BRACKETT, WILLIAM	27, High Street, Tunbridge Wells.
1882, Feb. 13	BRERETON, FRANC SADLEIR	Fenwick Buildings, 292, High Holborn, W.C
1883, May 25	BRINSLEY, GEORGE	30 and 31, New Bridge Street, E.C.
1882, Dec. 18	BRIDGEWATER, BENTLEY JAMES	80, Cheapside, E.C.
1874, Dec. 7	BROOK, JAMES	12, 13, & 14, Estate Buildings, Huddersfield
1883, April 16	BROOK, THOMAS	28, John William Street, Huddersfield.
1874 Jan. 5	BROWN, DANIEL JOHNSON	61, Lincoln's Inn Fields, W.C.
1868. Jul. 18	BROWN, GEORGE	Roborough House, Barnstaple, Devonshire
1881, Dec. 19	BROWN, GEORGE JAMES	8, Spring Gardens, S.W.
1888, April 30	BROWN, JOHN POWLES	21, East Street, Hereford.
1869, Feb. 22	BROWN, THOMAS FORSTER	Guildhall Chambers, Cardiff.
1869, Feb. 8	BROWN, WILLIAM	Tring, Herts.

Date of Election and of Transfer.	FELLOWS.	
1870, Dec. 12	BUCHAN, THOMAS	15, Barrack Street, Dundee.
1868, July 13	BUCK, ALBERT	Worcester.
1871, Dec. 18	BUCKLAND, FRANK BOWRY	Windsor.
1868, Jun. 15	BUCKLAND, VIRGOE (*Member of Council*)	66, Cannon Street, E.C.
1882, Mar. 13	BURBRIDGE, SAMUEL	9, Blomfield Street, E.C.
1868, Jul. 20	BURNELL, EDWARD HENRY	32, Bedford Row, W.C.
1881, Dec. 19	BURNETT, DAVID	14, Nicholas Lane, E.C.
1875, Feb. 1	BURROUGHES, THOMAS HENRY	16, Lower Berkeley Street, W.
1882, May 22	BURROWS, ALFRED J.	Surrenden Estate Office, Pluckley, Kent.
1874, Jan. 5	BUZZARD, ALFRED LINDSEY	22, Surrey Street, Strand, W.C.
A. '70, Feb. 7 F. '80, Nov. 22	CARRITT, ERNEST	4, Lime Street Square, Lime Street, E.C.
A. '82, Apr. 24 F. '83, Jan. 15	CARPENTER, EVAN GEORGE	21, High Street, Croydon, Surrey.
1883, May 25	CARTWRIGHT, GEORGE KINGSFORD	Queen's Road, Harrogate.
1881, Dec. 19	CARTWRIGHT, HENRY EDWARD	Magherafelt Manor, Co. Londonderry, Ireland.
1876, Apr. 24	CASSELL, JAMES ROBERT	11, Billiter Square, E.C.
1883, April 16	CASTLE, GEORGE RICHARD	Bicester, Oxford.
1874, Jan. 19	CASTLE, HENRY JAMES, SEN. (*Member of Council*)	40, Chancery Lane, W.C.
1881, Dec. 19	CASTLE, HENRY JAMES, JUN.	37, Bedford Row, W.C.
1878, Jan. 18	CASTLE, ROBERT	Merton Street, Oxford.
1872, Mar. 11	CASTLE, WILLIAM HENRY BALDWIN	40, Chancery Lane, W.C.
1870, Dec. 12	CATES, ARTHUR	7, Whitehall Yard, S.W.
1875, Jan. 4	CAVE, HENRY H.	The Manor House, Brigg, Lincolnshire.
1870, Jan. 10	CHANCELLOR, FREDERICK	Chelmsford, Essex; and 8, Finsbury Circus, E.C.
1868, Jun. 15	CHAPMAN, GEORGE	14, Cockspur Street, S.W.
1873, Jan. 27	CHEFFINS, CHARLES RICHARD	23, Abingdon Street, S.W.
1868, Jul. 6	CHINNOCK, FREDERICK GEORGE	11, Waterloo Place, S.W.
1882, Jan. 16	CLARK, SAMUEL	8, New Cavendish Street, W.
1882, Jan. 16	CLARKE, ALFRED DUDLEY	West Dean, Chichester.
1868, Jun. 15	CLARKE, THOMAS CHATFEILD (*Member of Council*)	63, Bishopsgate Street Within, E.C.
1868, Jun. 15	CLIFTON, EDWARD NORTON (*Past-President*)	7, East India Avenue, E.C.
1868, Jun. 15	CLUTTON, HENRY	9, Whitehall Place, S.W.
1868, Jun. 15	CLUTTON, JOHN (*Past-President*)	9, Whitehall Place, S.W.
A. '68, Jul. 13 F. '75, May 10	CLUTTON, JOHN HENRY	9, Whitehall Place, S.W.
A. '68, Jul. 6 F. '74, Apr. 13	CLUTTON, RALPH	9, Whitehall Place, S.W.
A. '70, Jan. 10 F. '75, Dec. 13	CLUTTON, RALPH WILLIAM	Hartswood, Reigate, Surrey.
1868, Jul. 13	CLUTTON, ROBERT GEORGE	9, Whitehall Place, S.W.
1869, Jan. 11	CLUTTON, WILLIAM JAMES	The Mount, York.
1882, Jan. 30	COBB, HERBERT MANSFIELD	43, Lincoln's Inn Fields, W.C
1868, Jun. 15	COBB, ROBERT LAKE (*Member of Council*)	Higham, Kent.

Date of Election and of Transfer.	FELLOWS.	
1882, Jan. 30	COLEMAN, JOHN	Riccall Hall, York.
1868, Aug. 17	COLLINS, HENRY HYMAN	61, Old Broad Street, E.C.
1869, Apr. 5	COMELY, JOHN GILL	Winchester, Hants.
1882, Jan. 30	COOPER, JOHN GROVES	Bideford, Devon.
1883, Feb. 26	COOPER, JOHN THOMAS	41, Moorgate Street, E.C.
1876, Apr. 24	COOTE, GEORGE	Smeetham Hall, Sudbury, Suffolk.
1872, Jan. 29	COUCHMAN, CHARLES	6, Waterloo Street, Birmingham.
1880, Jan. 5	COVERDALE, FREDERICK JOHN	Ingatestone Hall, Essex.
1882, Feb. 13	COVERDALE, HENRY	Cossey, Norfolk.
1878, Jan. 28	COWGILL, WILLIAM	Bradford.
1882, Feb. 13	COX, GEORGE JAMES	1, Promenade, Cheltenham.
1883, April 30	COUCHMAN, ROBERT EDWARD	6, Waterloo Street, Birmingham.
1869, Jan. 25	CRAWTER, JOHN	Cheshunt, Herts.
1869, Jan. 25	CRICKMAY, GEORGE RACKSTROW	17, Parliament Street, S.W., and St. Thomas Street, Weymouth.
1874, May 11	CRONK, EDWYN EVANS	Sevenoaks, Kent.
1882, Feb. 13	CRONK, EDWYN EVANS, JUN.	12, Pall Mall, S.W.
1882, Feb. 13	CRONK, FRANK	12, Pall Mall, S.W.
1883, Jan. 29	CRONK, WILLIAM HENRY	Sevenoaks, Kent.
1876, Jan. 10	CROSS, JOHN	77, King Street, Manchester.
1878, Apr. 21	CROSS, WILLIAM STEPHENS	53, Charing Cross, S.W.
1881, May 16	CROWTHER, SAMUEL	Bradford Estate Offices, Bolton.
A. '75, Mar. 1 F. '80, Nov. 8	CRUSE, EDMUND	34, High Street, Warminster, Wiltshire.
1868, Jun. 15	CURREY, HENRY	37, Norfolk Street, W.C.
1880, Dec. 13	CURTIS, CHARLES EDWARD	Deanyers, Alton, Hants.
1877, Apr. 16	CURTIS, ROBERT LEABON	15 and 16, Blomfield Street, E.C.
1879, Apr. 28	CURTIS, SAMUEL PERKINS	15 and 16, Blomfield Street, E.C.
1881, Dec. 19	DALLAS, EDWIN STUART	35, Great James Street, Bedford Row, W.C.
1882, Feb. 13	DANN, HENRY	Bexley, Kent.
1878, Apr. 29	DARLEY, WILLIAM	Eastfield, Askern, Doncaster.
1883, Feb. 26	DASH, THOMAS ALEXIS	12, Whitehall Place, S.W.
1868, Jul. 13	DAVID, EDWARD	Llandaff, Glamorganshire.
1882, Feb. 13	DAVIES, DAVID PRYSE	Troedybryn, near Llandilo, Carmarthen.
1878, Feb. 10	DAVIES, JOHN MORGAN	Froodvale, Llandilo, Carmarthenshire.
A. '77, Dec. 10 F. '81, Nov. 14	DAVIS, JAMES	32, Strand, W.C.
1883, Feb. 26	DAW, WILLIAM HERBERT	62, Coleman Street, E.C.
1882, Jan. 16	DEACON, THOMAS MARK	1, Adelaide Street, Charing Cross, S.W.
1883, Jan. 15	DENT, RALPH JOHN	Streatlam House, Darlington.
1868, Jun. 15	DENTON, JOHN BAILEY	22, Whitehall Place, S.W.
1882, Feb. 27	DEW, WILLIAM	Bryn Bras Castle, Carnarvon.
1882, Feb. 27	DEW, WILLIAM ARTHUR	Wellfield House, Bangor.
1883, Feb. 12	DINWIDDY, THOMAS	Croom's Hill, Greenwich Park.
A. '69, Feb. 8 F. '78, Feb. 25	DODGSON, WILFRED LONGLEY	The Moor, Ludlow.
A. '69, Jan. 25 F. '82, Nov. 13	DOWDEN, HENRY JOSEPH	41, Charing Cross, S.W.
1882, Jan. 30	DOWLING, CLEMENT	32, Craven Street, W.C.
1878, Jan. 14	DOWNING, FREDERICK	7A, Whitehall Yard, S.W.

Date of Election and of Transfer.	FELLOWS.	
1873, Feb. 10	DREW, HENRY	Exeter.
1872, Feb. 26	DREW, JOHN	9, Queen Street, Exeter; and Powderham Castle, near Exeter.
1883, April 2	DREWITT, GEORGE	94, High Street, Guildford.
A. '76, Jan. 10 F. '78, Feb. 25	DRIVER, CHARLES WILLIAM	4, Whitehall, S.W.
1868, Jun. 15	DRIVER, ROBERT COLLIER (*Vice-President*)	4, Whitehall, S.W.
1880 Dec. 18	DRIVER, ROBERT MANNING	4, Whitehall, S.W.
1882, Jan. 16	DRURY, EDWARD DRU	25, Queen Anne's Gate, S.W.
1874, Jan. 5	DUNCH, CHARLES	District Board Offices, White House, Commercial Road, E.
1871, Jan. 30	DUNLOP, ALEXANDER MILNE (*Member of Council*)	3, Old Palace Yard, Westminster S.W.
1882, Apr. 24	DYER, WILLIAM JOHN	Montpelier Road, Blackheath, S.E.
1868, Jun. 15	DYMOND, FRANCIS WILLIAMS	Exeter.
1883, Jan. 15	EALES, FREDERICK ERNEST	9, Welbeck Street, W.
1868, Aug. 8	EASTON, WILLIAM	6, Hammet Street, Taunton, Somersetshire
1881, Dec. 19	EGERTON, HUBERT DECIMUS	8, New Road, Oxford.
1882, Dec. 18	ELLIS, HENRY	62, Chancery Lane, W.C.
1883, Feb. 12	ELLIS, RICHARD ADAM	40, Fenchurch Street, E.C.
1875, Feb. 1	ELLIS, SIR JOHN WHITTAKER, BART.	5, Lancaster Place, W.C., and 18, Old Broad Street, E.C.
1872, Feb. 26	EMMANUEL, BARROW	2, Finsbury Circus, E.C.
1883, Feb. 26	EVANS, ROBERT	Eldin Chambers, Wheeler Gate, Nottingham.
A. 1874, Feb. 16 F. 1876, Nov. 27	EVANS, WILLIAM ERNEST	52, Abbey Foregate, Shrewsbury.
1882, Jan. 16	EVE, JOHN RICHARD	Silsoe, Ampthill, Beds.
1868, Aug. 8	EVE, WILLIAM	10, Union Court, Old Broad Street, E.C.
1873, May 5	EVES, GEORGE	Uxbridge, Middlesex.
1880, Jan. 5	FAIR, JACOB WILSON	8, Winckley Street, Preston, & Haigh Hall, Wigan.
1879, Mar. 31	FARRAR, JAMES	12, Market Street, Bury, Lancashire.
1883, Feb. 12	FELTON, GEORGE FREDERICK	6, Church Walks, Llandudno.
1882, Dec. 18	FIDDIAN, WILLIAM	98, High Street, Stourbridge.
1873, Jan. 27	FIELD, FRANCIS HAYWARD	Merton Street, Oxford.
1883, Jan. 29	FIELD, JAMES FREDERICK	57, Borough High Street, S.E.
1880, Jan. 19	FLOCKTON, THOMAS JAMES	15, St. James' Row, Sheffield.
1881, Dec. 19	FORREST, ROBERT	Windsor Estate Office, St. Fagans, near Cardiff.
1879, Dec. 8	FORSHAW, EDWARD	Basford, Stoke-upon-Trent.
1872, Mar. 11	FOSTER, CHARLES ROLLS	54, Pall Mall, S.W.
1881, Dec. 19	FOSTER, JOSEPH BURGESS	4, Cambridge Street, Plymouth, Devon.
1882, Jan. 16	FOULKES, SEPTIMUS GIFFORD	Tring, Herts.
1882, Jan. 16	FOWLER, FREDERICK	St. James' Street, Sheffield.
1882, Dec. 18	FOWLER, HENRY	95, Colmore Row, Birmingham.
1873, Dec. 8	FOWLER, WILLIAM (*Member of Council.*)	95, Colmore Row, Birmingham.
1883, April 16	FRANKLIN, THOMAS	Ascot, near Wallingford.
1883, April 16	FRANKLIN, WILLIAM TAYLOR	Ascot, near Wallingford.

Date of Election and of Transfer.	FELLOWS.	
1882, Feb. 13	FRYER, GEORGE	Rose Villa, Bishop Wilton, near York, and White Friar Gate, Hull.
1875, Jan. 18	FRY, GEORGE FREDERICK	46, London Road, Dover.
1868, Jun. 15	FULLER, FRANCIS	63, St. Aubyn's Place, Cliftonville, Hove, Brighton
1882, Mar. 13	FURBER, HERBERT	2, Warwick Court, Gray's Inn, W.C.
1876, Jan. 10	GAIRDNER, EDWARD JAMES	42, University Street, W.C., and 9 and 10, Craig's Court, Charing Cross, S.W.
1882, Feb. 27	GALE, JOSEPH JOHN	Market Place, Wallingford, Berks.
1882, Nov. 13	GALPIN, CHARLES ALEXANDER	30, New Inn Hall Street, Oxford.
1882, Nov. 13	GALPIN, JOHN	30, New Inn Hall Street, Oxford.
1868, Jul. 6	GALSWORTHY, FREDERICK THOMAS	11, Waterloo Place, S.W.
1882, Feb. 13	GARDINER, EDWARD JAMES	110, Great Russell Street, W.C.
1868, Sep. 28	GARDINER, WILLIAM JAMES	110, Great Russell Street, W.C.
1882, Jan. 16	GATER, CALEB WILLIAM	Salisbury, Wilts.
1883, April 30	GERMAN, GEORGE	Ashby-de-la-Zouch.
1883, Feb. 12	GERMAN, JOHN	Ashby-de-la-Zouch.
1875, Feb. 1	GILBERT, WILLIAM HENRY SAINSBURY	9, Old Jewry, E.C.
1880, Feb. 2	GILLART, RICHARD	Machynlleth, Montgomeryshire.
1869, Dec. 6	GIRDWOOD, JAMES	18, Adam Street, Adelphi, W.C.
1876, Jan. 24	GLASIER, GEORGE HENRY BROUGHAM	41, Charing Cross, S.W.
A. '78, May 19 F. '78, Mar. 11	GORE, SPENCER W.	16, Whitehall Place, S.W.
A. '77, Feb. 12 F. '82, Dec. 18	GOTTO, FREDERICK EDWARD	Stony Stratford, Bucks.
1880, Apr. 12	GOULDING, WILLIAM PURDHAM	41, Moorgate Street, E.C.
1878, Feb. 10	GOUTHWAITE, RICHARD	Lumby, near South Milford, Yorkshire.
1875, Jan. 18	GRAHAM, WILLIAM	Victoria Chambers, Newport, Monmouthshire.
1883, Feb. 26	GRATTON, JOHN STERLAND	Midland Railway Station, Derby.
1882, Jan. 16	GREEN, JAMES	22, Chancery Lane, W.C.
1875, Jan. 18	GREY, CHARLES GREY	55, Parliament Street, Westminster, S.W.
1876, Mar. 20	GWYTHER, WILLIAM WARLOW	43, Lincoln's Inn Fields, W.C.
1874, Mar. 16	HADDOCK, ROLAND	21, High Street, Croydon, Surrey.
1881, May 2	HALL, ERNEST	166, Queen Street, Portsea, Hants.
1878, Dec. 9	HALL, JOHN GEORGE	8, Masbro' Road, West Kensington, W
1883, April 16	HALL, WALTER	High Court Chambers, Southampton Buildings Chancery Lane, W.C.
1882, Jan. 16	HAMILTON, HENRY	64 & 65, Coleman Street, E.C.
1881, Dec. 19	HARDCASTLE, FREDERICK HENRY APPLETON	10, Brunswick Square, W.C.
A. '77, Mar. 26 F. '82, Dec. 18	HARDING, EDWARD ERNEST	16, St. Paul's Churchyard, E.C.
1875, Jan. 4	HARDING, JOSEPH	49, Lune Street, Preston.
1881, Dec. 19	HARDING, SIDNEY LONGHURST	St. Albans, Herts.
1875, Dec. 18	HARDING, WILLIAM DANIEL	16, St. Paul's Churchyard, E.C.
A. '77, Mar. 26 F. '82, Dec. 18	HARDING, WILLIAM DANIEL, JUN.	16, St. Paul's Churchyard, E.C.
1871, Feb. 27	HART, WILLIAM FREDERICK	Lambeth Waterworks, Brixton Hill, S.W.
1868, Jul. 13	HARVEY, JOHN	6, Victoria Place, Haverfordwest, Pembrokeshire
1868, Jul. 13	HARVEY, RICHARD HART	6, Victoria Place, Haverfordwest, Pembrokeshire
1873, May 19	HASLAM, DRYLAND	17, Friar Street, Reading.

Date of Election and of Transfer.	FELLOWS.	
1881, Dec. 19	HAYWARD, HENRY	Dover.
1868, Jul. 6	HAYWOOD, WILLIAM	Guildhall, E.C.
1882, Dec. 18	HEARD, HERBERT	Shepton Mallet, Somerset.
1882, Jan. 16	HEATON, GEORGE HERBERT .	Endon, near Stoke-upon-Trent, Staffordshire.
1881, Apr. 4	HEBBLETHWAITE, LOUIS . .	Conservancy Buildings, Hull.
1871, Jan. 16	HEDLEY, THOMAS FENWICK . .	Sunderland.
1881, May 2	HEDLEY, THOMAS FENWICK, JUN.	Sunderland.
1870, Jan. 10	HILLIARD, GEORGE BRIDGE .	Chelmsford, Essex.
1883, Feb. 26	HINE, GEORGE THOMAS . .	Victoria Street, Nottingham.
1868, Jul. 13	HIPPISLEY, EDWIN	Chamberlain Street, Wells, Somersetshire.
1882, May 22	HITCHCOX, WILLIAM . . .	Victoria Chambers, Newport, Monmouthshire.
1878, Dec. 9	HOBGEN, FRANCIS NEALE . .	East Street, Chichester.
1883, Feb. 12	HOBSON, FREDERICK WILLIAM .	20, Coleman Street, E.C.
1878, Dec. 9	HODSON, GEORGE	Town Hall, Loughborough.
1882, Apr. 24	HOLBECHE, ROBERT NEVILLE .	21, Bennett's Hill, Birmingham.
1874, Nov. 16	HOLDEN, JOHN	64, Cross Street, Manchester.
1882, Jan. 16	HOLMES, JAMES	23, Delamere Street, Ashton-under-Lyne.
1882, Apr. 24	*HORNE, WILLIAM EDGAR . .	80, Fore Street, E.C.
1868, Jun. 15	HORSEY, THOMAS	11, Billiter Square, E.C.
1869 Feb. 22	HORSFALL, RICHARD	Halifax, Yorkshire.
1869, Apr. 5	HORWOOD, JAMES.	10, Paternoster Row, E.C.
1881 Dec. 19	HOVENDEN, THOMAS HENRY .	181, Bishopsgate Street Without.
A. '69, Feb. 8 F. '83, Mar. 12	HUBBERSTY, HENRY ALFRED .	Buxton, Derbyshire.
1883, April 30	HUDSON, ARTHUR BYRNE . .	19, Bennet's Hill, E.C.
1868, Sep. 28	HUDSON, WILLIAM	Hope Lodge, 181, Grove Lane, Camberwell, and 19, Bennet's Hill, E.C.
1882 Mar. 13	HULL, CHARLES	Euston Station, London, N.W.
1868, Nov. 2	HUMBERT, CHARLES F. . . .	Watford, Herts.
1869, Feb. 22	HUMPHREYS, CHARLES . . .	6, Crosby Square, Bishopsgate Street Within, E.C.
1881, Dec. 5	HUMPHREYS, HENRY . . .	Woodhouse, Loughborough, Leicestershire.
1868, Jun. 15	HUNT, SIR HENRY ARTHUR, C.B.	45, Parliament Street, Westminster, S.W.
1874, May 11	HUNT, HENRY ARTHUR, JUN. .	45, Parliament Street, S.W.
1869, Mar. 8	HUNT, JOSIAH	6, Queen Anne's Gate, Westminster, S.W.
1868, Jun. 15	HUSKINSON, THOMAS . . . (*Past-President*)	Epperstone, Nottingham.
1874, Jan. 19	HUSKINSON, WILLIAM LAMBE .	The Manor House, Epperstone, Nottingham.
1869, Feb. 22	HUSSEY, GEORGE HENRY . .	The Green, High Wycombe, Bucks.
1868, Jun. 15	I'ANSON, EDWARD . . . . (*Vice-President*)	7A, Laurence Pountney Hill, E.C.
1880, Jan. 19	I'ANSON, EDWARD BLAKEWAY .	7A, Laurence Pountney Hill, E.C
A. '73, Feb. 10 F. '82, Jan. 16	INGRAM, WALTER FIELDE . .	Firle, Lewes, Sussex.
1882, Dec. 18	INMAN, MARSHALL NISBET . .	7, Bedford Row, W.C.
1882, Dec. 18	INNOCENT, CHARLES JOHN .	Sheffield.
1880, Feb. 16	JACKSON, CHARLES . . .	25, Brazennose Street, Manchester.
1869, Jul. 26	JACKSON, FREDERICK. . . .	Nottingham.
1876, Apr. 8	JEMMETT, ALEXANDER . . .	Nympsfield, Stonehouse, Stroud, Gloucestershire.

Date of Election and of Transfer.	FELLOWS.	
1882, Feb. 13	JENKINSON, WILLIAM WILBERFORCE	6, Moorgate Street, E.C.
A. '69, Apr. 5 F. '78, Feb. 25	JONAS, HENRY	4, Whitehall, S.W.
1868, Jul. 27	JONAS, JOHN CARTER	27, Market Hill, Cambridge.
1882, Mar. 13	JONES, CHARLES FREDERICK	Temple Chambers, 32, Fleet Street, E.C.
1882, Jan. 16	JONES, CHARLES JENKIN	2, Storey's Gate, S.W.
1873, Apr. 21	JONES, HENRY PARR	Portway House, Warminster.
1881, Dec. 19	JONES, JAMES WILLIAM	54, Caledonian Road, Leeds.
1880, Nov. 8	KEIRLE, ROBERT	111, Victoria Street, S.W.
1882, Jan. 16	KEELING, BASSETT	10, King's Arms Yard, Lothbury, E.C.
1883, Jan. 29	KING, FRANK HULME	Horsham, Sussex.
1869, Mar. 22	KING, WILLIAM DAVID	Farlington Farm, Havant, Hants.
1882, May 8	KINGSTON, SAMUEL	Spalding, Lincoln.
1868, Sep. 28	KNOLLYS, JAMES EDWARD	Fitzhead Court, Taunton, Somerset.
1871, Feb. 27	KNOWLES, WILLIAM	Albion Chambers, King Street, Gloucester.
1868, Aug. 8	LAMBERT, WILLIAM	1, New Broad Street, E.C.
1876, Apr. 24	LANE, CECIL NEWTON	Whiston Hall, Shifnal, Salop.
1882, Feb. 27	LANGRIDGE, GEORGE	Public Rooms, Tunbridge Wells, Kent.
1881, Jan. 24	LANSDOWN, GEORGE	2 & 3, Warwick Street, Charing Cross, S.W.
1868, Nov. 9	LAURANCE, JOHN, JUN.	Sexton Barns, Peterboro'.
1868, Jul. 20	LAVENDER, JOSEPH	26, Bedford Row, W.C.
1878, Nov. 11	LEANE, GEORGE HENRY	21, Queen Anne's Gate, S.W.
A. '68, July 6 F. '82, May 8	LEE, CHARLES WILLIAMS	8, Adelphi Terrace, W.C.
1874, Feb. 2	LEE, FREDERICK	6, Great College Street, Westminster, S.W.
1870, Feb. 7	LEES, JOHN	Reigate, Surrey.
1882, Dec. 18	LEMON, JAMES	Southampton.
1882, Jan. 30	LEPPER, JOHN HARRAGE	Town Hall, Bromley, Kent.
A. '73, Jan. 27 F. '82, Apr. 24	LERMIT, ALFRED WILLIAM	Singapore Straits Settlements.
1882, Feb. 27	LEWIS, FRANCIS THEODORE	95, Gresham Street, E.C.
1881, Dec. 19	LIGHTFOOT, FRANCIS LOWRY	3, Old Palace Yard, S.W.
1883, Feb. 26	LIGHTFOOT, HENRY LE BLANC	Lower Lawn, Tisbury, Salisbury.
1882, Feb. 13	LITTLE, WILLIAM CUTLACK	Stag's Holt, March, Cambridgeshire.
1881, Dec. 19	LOCK, WILLIAM HENRY	Instow, North Devon.
1875, Mar. 15	LOFTS, HENRY	130, Mount Street, Grosvenor Square, W.
1876, Feb. 7	LOVEJOY, ALFRED	35, Bucklersbury, E.C.
1882, Feb. 13	LOWE, CHARLES HARLOWE	Hampstead Vestry Hall, Haverstock Hill, N.W.
1869, Jul. 12	LYE, JOHN GAUNT	8, Lancaster Place, W.C.
1868, Nov. 2	MACAULAY, COLIN ALEXANDER	Leicester.
1869, Jan. 25	MANN, CHARLES JOHN	29, Great George Street, S.W.
1875, Jan. 18	MANN, ROBERT WILKS	7, Hobart Place, S.W.
1869, Mar. 22	MARR, JAMES	8, Adam Street, Adelphi, W.C.
1876, Mar. 20	MARTIN, GILSON	Chatsworth, Chesterfield.
1875, Jan. 4	MARTIN, HOWARD	27, Chancery Lane, W.C., and Bolney Grange, Havelock Road, Croydon.

Date of Election and of Transfer.	FELLOWS.	
1870, Feb. 7	MARTIN, JAMES . . . . . (*Member of Council*)	Wainfleet, Lincolnshire.
1876, May 8	MARTIN, JOHN MAY	Castle Chambers, Exeter.
1875, May 10	MASON, WILLIAM LUDLAM . .	The High Holme, Louth, Lincolnshire.
1882, Jan. 16	MASTERMAN, GEORGE HUGHES .	37, Walbrook, E.C.
1868, Jun. 15	MATHEWS, JEREMIAH . . .	15, Waterloo Street, Birmingham.
1868, Jun. 15	MATHEWS, WILLIAM	15, Waterloo Street, Birmingham.
1882, Jan. 30	MAYLARD, CHARLES GRASON .	21, King William Street, Strand, W.C.
1882, Dec. 18	MAYNARD, EDWARD	22, Great George Street, S.W.
1876, Feb. 7	MCCALL, GEORGE	33, Victoria Chambers, Market Place, Blackburn.
1879, Dec. 8	MELLERSH, ALFRED WILLIAM .	Godalming, Surrey.
1882, Feb. 27	MESSENGER, WILLIAM HARRY .	Hullbrook, Guildford, Surrey.
1882, Jan. 16	MILLAR, CHARLES WILLIAM . .	14, Grafton Street, W.
1877, Feb. 12	MINTER, WILLIAM	81, Bondgate, Darlington.
1874, Dec. 7	MOORE, EDWARD WELLS . .	Middle Claydon, Winslow, Bucks.
1876, Nov. 13	MORRIS, JOHN WARRINGTON .	Gracechurch Buildings, Gracechurch Street, E.C.
1881, Feb. 7	MORTIMER, JOHN CAMDEN . .	5, Great Queen Street, S.W.
1882, Mar. 13	MULLETT, FREDERICK AUGUSTUS	Albion House, Hyde Park Square, W.
1881, Dec. 19	MULLINER, THOMAS	Albert Square, Manchester.
1882, Feb. 27	MUNRO, PHILIP	Bank Chambers, Corn Street, Bristol.
1878, Dec. 9	MURPHY, EDMUND	Dunfanaghy, Letterkenny, Ireland.
1882, May 8	MYNORS, WALTER CHARLES TOWERS	Little Ingestre, Stafford.
A. '69, Jan. 25 F. '82, Mar. 13	NASH, ALFRED JAMES . . .	Farnham, Surrey.
1874, Apr. 13	NAYLOR, ARTHUR MILLINGTON .	3, Old Palace Yard, Westminster, S.W
1868, Nov. 2	NEALE, CHARLES JAMES . .	High Oakham, Mansfield, Notts.
1879, Feb. 8	NEAME, FREDERICK, JUN. . .	Macknade, Faversham, Kent.
1882, Apr. 24	NEATE, ARTHUR WEBB . . .	Hungerford, Berks.
A. '75, Dec. 13 F. '82, Feb. 27	NEVILE, HENRY WILLIAM . .	Broughton Estate Office, 8, John Dalton Street, Manchester.
1872, Dec. 9	NEWMAN, FRANCIS	Ryde, Isle of Wight.
1882, Feb. 13	NEWSON, HARRY CRASS . . .	57, Lincoln's Inn Fields, W.C.
1875, Jan. 18	NICHOLS, DANIEL CUBITT . .	3, Howard Street, Strand, W.C.
1872, Jan. 29	NISBET, RALPH P.	4, Dempster Terrace, St. Andrews, N.B.
1875, Apr. 26	NOCKOLDS, MARTIN	Saffron Walden, Essex.
1876, Mar. 20	NORMAN, JAMES MAURICE . .	Uxbridge, Middlesex.
1869, Mar. 8	NORMAN, WILLIAM	8, Spring Gardens, S.W.
1868, Jul. 20	NORTH, GEORGE	22, Whitehall Place, S.W.
1868, May 25	*NORTH, GEORGE FREDERIC . .	Wroxton Estate Office, near Banbury, Oxon.
1871, Feb. 13	NOTLEY, RICHARD ALBERT . .	80, Cornhill, E.C.
1882, Jan. 16	NOTLEY, ROBERT PLEDGE . .	35, Bucklersbury, E.C.
1868, Jul. 6	OAKLEY, CHRISTOPHER . . . (*Member of Council*)	10, Waterloo Place, S.W.
1877, Apr. 30	OAKLEY, WILLIAM	10, Waterloo Place, S.W.
1881, Dec. 19	OBORNE, ALFRED WILLIAM . .	9, Moorgate Street, E.C., and Wimbledon Park, Surrey.
1882, Feb. 13	OSBORN, RICHARD	153, Fenchurch Street, E.C.
1869, Mar. 8	OWEN, THOMAS RULE . . .	High Street, Haverfordwest, Pembrokeshire.

Date of Election and of Transfer.	FELLOWS.	
A. '75, Nov. 8 F. '81, April 4	PAIN, COARD SQUAREY . . .	14, North John Street, Liverpool.
1882, Dec. 18	PALMER, ALFRED	8, Lancaster Place, W.C.
1883, Jan. 15	PARMETER, FRANK	South View House, West Parade, Newcastle-on-Tyne.
1883, Mar. 12	PARR, SAMUEL	7, Finsbury Square, E.C.
1872, Dec. 9	PARSONS, HENRY.	Misterton, Crewkerne, Somerset.
1875, Nov. 8	PATERSON, ROBERT	10, Hanover Street, Edinburgh.
1881, Jan. 24	PATTISSON, JACOB LUARD . .	6, Sussex Gardens, Hyde Park, W.
1881, Jan. 10	PAUL, EDWARD THEODORUS . .	13, Dickenson Street, Manchester.
1870, Dec. 12	PAXTON, JONAS	Bicester, Oxfordshire.
1880, Dec. 13	PAYNE, ALEXANDER	4, Storey's Gate, S.W.
1882, Jan. 30	PAYNE, FREDERICK	Town Hall, Bromley, Kent.
1883, Feb. 12	PEEBLES, ALEXANDER . . .	3, Salters' Hall Court, E.C.
1882, Jun. 15	PENFOLD, JOHN WORNHAM . . (*Honorary Secretary*)	29, Great George Street, Westminster, S.W.
1876, May 8	PEPPERCORN, JOHN HUTCHINSON	Manor House, Eaton Socon, St. Neots.
1876, Feb. 21	PHILLIPS, FREDERICK HAMILTON	Glamorganshire County Road Surveyor's Office, Eaglesbush, Neath, Glamorganshire.
1881, Dec. 19	PICKSTOCK, JOHN	Castle Hill, Winchester, Hants.
1881, Dec. 19	PODMORE, HENRY ROBERT BERESFORD	145, High Street, Croydon.
1882, Jan. 16	PORTER, ALFRED	109, Grange Road, Bermondsey, S.E.
1880, Jan. 5	POTTS, JOSEPH, JUN. . . .	North Cliff, Roker, Sunderland.
1870, Jan. 24	POUNDLEY, JOHN EDWARD . .	Black Hall, Kerry, Montgomeryshire.
1877, May 14	POWELL, EVAN	Broomcliffe, Llanidloes, Montgomeryshire.
A. '74, Feb. 16 F. '80, Nov. 22	POWELL, REGINALD HENRY . .	St. Swithin's Lane, High Street, Lewes, Sussex.
1877, Dec. 10	POWNALL, GEORGE HARRY . .	29, Parliament Street, S.W.
1872, Nov. 25	PRICKETT, WALTER BELLSON .	62, Chancery Lane, W.C.
1877, May 14	PRIOR, RICHARD JAMES . . .	Canterbury, and 57, Lincoln's Inn Fields, W.C.
1882, Apr. 24	RABY, JOSEPH WALKER . . .	78, Cross Street, Manchester.
1881, Nov. 14	RABY, WILLIAM	78, Cross Street, Manchester.
1883, Feb. 26	RAWLENCE, ERNEST ALFRED .	Tower House, Salisbury.
1870, Jan. 24	RAWLENCE, GEORGE	Salisbury, Wilts
1870, Feb. 7	RAWLENCE, JAMES	Salisbury, Wilts.
1868, Oct. 26	RAYNSIRD, HUGH EDWARD . .	Basingstoke, Hants.
1882, Dec. 18	REDDALL, DAVID GADSDEN. .	10, South Street, Finsbury, E.C.
1880, Dec. 13	REES, WILLIAM ANDREW . .	7, Cornhill, E.C.
1879, Apr. 28	REES, WILLIAM GEORGE . .	Holly House, Newport, Monmouthshire.
1878, Nov. 11	REID, PATRICK SANDEMAN . .	20, John Street, Adelphi, W.C.
1883, April 30	RENDELL, ARTHUR STEPHEN .	Homefield, Coffinswell, Newton Abbott.
1883, April 2	RIDDLE, FREDERICK HENRY BRIMBLE	64, Gresham Street, E.C.
A. '69, Feb. 8 F. '82, Feb. 13	REX, WILLIAM	311, Kentish Town Road, N.W.
A. '76, May 8 F. '81, Dec. 6	RICH, ROBERT	Weston Birt, near Tetbury, Gloucestershire.
1883, Feb. 12	RICHARDS, ALFRED	8, New Broad Street, E.C.
1876, Dec. 18	RICHARDSON, JOHN	Methley Park, Leeds.
1875, Feb. 10	RICKMAN, THOMAS MILLER . .	8, Montague Street, Russell Square, W.C.

Date of Election and of Transfer.	FELLOWS.	
A. '82, Jan. 30 F. '85, Jan. 29	RIGDEN, HENRY WILLIAM . .	Salisbury, Wilts.
1868, Jun. 15	RIGDEN, RICHARD HENRY . .	The Close, Salisbury, Wilts.
1862, Mar. 27	ROBERTS, JAMES MACKENZIE .	Dedham, near Colchester, Essex.
1868, Aug. 17	ROBERTS, RICHARD	42, New Broad Street, E.C.
1879, Mar. 31	ROBINS, EDMUND.	5, Waterloo Place, S.W.
1868, Jul. 13	ROBINS, EDWARD COOKWORTHY .	14, John Street, Adelphi, W.C.
1881, Jan. 24	ROBINS, WILLIAM HENRY . .	82A, New Street, Birmingham.
1881, Apr. 4	ROBINSON, HENRY	7, Westminster Chambers, S.W.
1862, May 8	ROBINSON, NATHANIEL WISHART	Marlowes, Hemel Hempstead, Herts.
1872, Dec. 9	ROBSON, EDWARD ROBERT . .	41, Parliament Street, Westminster; and 6, St. Germain's Place, Blackheath, S.E.
1879, Mar. 17	ROBSON, HENRY	Old Elvet, Durham.
1881, Jan. 24	ROGERS, EDWARD PHIPPARD GEORGE	16, Borough, London Bridge, S.E.
1882, Dec. 4	ROGERS, ERNEST EDWARD . .	1, Prince of Wales Road, Norwich.
A. '74, Dec. 7 F. '76, Jan. 24	ROLLESTON, JOHN FOWKE LANCELOT	Grey Friars, Leicester.
1868, Aug. 31	ROSSER, WILLIAM	Llanelly, Carmarthen.
1878, Apr. 8	ROWE, RICHARD REYNOLDS . .	Park House, Cambridge.
A. '73, Dec. 8 F. '75, Nov. 8	RUSHWORTH, EDMUND WALTER	22, Savile Row, W.
A. '76, Dec. 18 F. '80, Nov. 8	RYDE, ARTHUR LYON . . .	29, Great George Street, S.W.
1868, Jun. 15	RYDE, EDWARD . . . . (*Past-President*)	29, Great George Street, S.W.
1876, Jan. 24	SADLER, GEORGE WILLIAM . .	467, High Street, Cheltenham.
1875, Apr. 26	SANDAY, GEORGE HENRY . .	Wensley House, Bedale, Yorkshire.
1862, Feb. 13	SANDERS, THOMAS	Cheltenham.
1876, Nov. 27	SANDY, HENRY	Newport Road, Stafford.
1869, Feb. 8	SAUNDERS, CECIL GEORGE . .	29, Great George Street, S.W.
1869, Feb. 22	SAUNDERS, EDWARD	6, Bishopsgate Street Without, E.C.
1863, Aug. 17	SAVILL, ALFRED	3, St. Helen's Place, E.C.; and Chigwell, Essex.
1879, Jan. 6	SCARGILL, ALFRED	11, East Parade, Sheffield.
1874, Feb. 2	SCARTH, WILLIAM T. . . .	Raby Castle, Darlington.
A. '81, Dec. 5 F. '82, Apr. 24	SCOVELL, JOHN	Batsford, Moreton-in-the-Marsh, Gloucestershire.
1875, Mar. 1	SEARLE, FRANCIS WILLIAM . .	Marsh House, Tottenham, Middlesex.
1879, Mar. 3	SELBY, CHARLES FREDERIC . .	19, Queen Anne's Gate, S.W.
1875, Mar. 1	SHACKEL, GEORGE	12, The Forbury, Reading, Berks.
1876, Mar. 6	SHAW, JOHN	College Place, Derby.
1881, Dec. 19	SHERLOCK, CORNELIUS . . .	63, South John Street, Liverpool.
A. '77, Jan. 29 F. '80, Nov. 8	SHOPPEE, CHARLES HERBERT .	61, Doughty Street, W.C.
1868, Jul. 13	SHOPPEE, CHARLES JOHN . . (*Member of Council*)	61, Doughty Street, W.C.
A. '81, Jan. 24 F. '83, May 21	*SILCOCK, THOMAS BALL. . .	14, Abbey Churchyard, Bath.
1862, Jan. 30	SIMMONDS, FREDERICK . . .	Parkside, Englefield Green, Surrey.
1863, Feb. 26	SIMMS, WALTER	27, Albany Street, N.W.
1872, Apr. 22	SLATER, GEORGE.	Canterbury.
A. '80, Dec. 13 F. '83, April 30	SMALLPIECE, GEORGE BAKER .	9 and 10, Tokenhouse Yard, E.C

Date of Election and of Transfer.	FELLOWS.	
1868, Oct. 26	SMELLIE, THOMAS DAVIES . .	209, St. Vincent Street, Glasgow.
1868, Aug. 17	SMITH, CHARLES BOVILL .	Wickham, Hants.
1868, Jul. 13	SMITH, CHARLES JOHN . . .	94, Cheyne Walk, Chelsea, S.W.
A. '70, Mar. 21 F. '78, Mar. 11	SMITH, CHARLES JOHN . .	16, Whitehall Place, S.W.
A. '76, May 8 F. '81, Dec. 6	SMITH, HENRY	8, John Street, Adelphi, W.C.
A. '75, Apr. 26 F. '81, Jan. 24	SMITH, HENRY HERBERT . .	7, Whitehall, S.W.
1868, May 25	SMITH, JOSEPH	15, Cheapside, Bradford, Yorkshire.
1868, Nov. 9	SOUTHWELL, CHARLES JOSIAH .	9, Whitehall Place, S.W.
1868, Jul. 27	SPACKMAN, HENRY	6, Terrace Walks, Bath.
1868, Jun. 15	SQUAREY, ELIAS PITTS . . . (*Vice-President*)	22, Great George Street, S.W.; and The Moot, Downton, Salisbury.
1871, Feb. 18	ST. QUINTIN, PERRY. . . .	37, Threadneedle Street, E.C.
1869, Dec. 18	STANGER, CALEB.	21, Finsbury Pavement, E.C.
1868, Aug. 17	STANLEY, HENRY	Bury St. Edmunds, Suffolk.
1868, Jun. 15	STATTER, THOMAS	Standhall, Whitefield, Manchester.
1877, Jan. 15	STENNING, ALEXANDER ROSE .	27, Fenchurch Street, E.C.
1868, Jun. 15	STEPHENSON, CHARLES . . .	45, Parliament Street, Westminster, S.W.
A. '79, Jan. 6 F. '82, Nov. 13	STEPHENSON, CHARLES WILLIAM	38, Parliament Street, S.W.
1876, Jan. 24	STEPHENSON, CHRISTOPHER. .	Naworth Estate Office, Brampton, Cumberland.
1868, Jul. 27	STEWARD, HERBERT THOMAS .	45, Parliament Street, S.W.
1883, April 30	STOCK, HENRY	6, Duke Street, London Bridge, S.E.
1881, Dec. 19	STONER, ALFRED.	8, Blomfield Street, E.C.
1881, Dec. 19	STRUDWICK, WILLIAM HENRY .	14, Parliament Street, S.W.
1868, Jul. 20	STURGE, ROBERT FOWLER . .	34, Corn Street, Bristol.
1868, Jun. 15	STURGE, WILLIAM . . . . (*Past-President*)	34, Corn Street, Bristol.
1874, Feb. 16	SWORDER, GEORGE EDWARD .	Bishop's Stortford, Herts.
1875, Feb. 15	SWORDER, WILLIAM	Stapleford Tawney Hall, near Romford, Essex.
A. '70, Feb. 7 F. '78, Jan. 28	TATHAM, GEORGE HENRY . .	1, Walbrook, E.C.
1883, April 16	THEOBALD, HENRY WELLS DEWHURST	110, Great Russell Street, W.C.
1874, Jan. 19	THOMAS, JOSIAH	Athenæum Chambers, Nicholas Street, Bristol.
1869, Dec. 18	THOMPSON, ARTHUR EDWARD .	72A, Old Broad Street, E.C.
A. '70, Feb. 21 F. '82, Jan. 30	THOMPSON, CHARLES WILLIAM .	Guildhall, London, E.C.
1881, Dec. 19	THOMPSON, EDWARD JAMES . .	The Willows, Moss Lane, Timperley, Manchester.
1881, Dec. 19	THURGOOD, HERBERT JOHN .	27, Chancery Lane, W.C.
1878, Jan. 14	THURSFIELD, THOMAS HOWELLS	Barrow, Brosely, Shropshire.
1868, Jun. 15	THYNNE, EDWARD LEWIS . .	11, Great George Street, S.W.
1869, Jan. 11	THYNNE, FREDERICK GEORGE .	11, Great George Street, S.W.
1882, Feb. 18	TIFFEN, JOSEPH	Conservancy Buildings, Hull.
1875, Jan. 18	TOLLEY, JAMES	66, Cannon Street, E.C.
1882, Feb. 27	TOOTELL, CHARLES	13, King Street, Maidstone, Kent.
1877, Jan. 29	TOOTELL, JOSEPH	Maidstone, Kent.
1882, Feb. 27	TOOTELL, JOSEPH, JUN. . . .	13, King Street, Maidstone, Kent.
1877, Jan. 29	TOOTELL, RICHARD WILLIAM .	11, Queen Victoria Street, E.C.
1876, Apr. 24	TOWER, BROWNLOW RICHARD CHRISTOPHER	The Old House, Kibworth, Harcourt, Leicestershire.

Date of Election and of Transfer.	FELLOWS.	
1868, Jun. 15	TRIST, GEORGE	62, Old Broad Street, E.C.
1874, May 11	TROLLOPE, CHARLES BROWN	13, Parliament Street, Westminster, S.W.
1868, Jun. 15	TRUMPER, RICHARD	23, Lincoln's Inn Fields, W.C.
1868, Aug. 3	TUCKETT, PHILIP DEBELL	10A, Old Broad Street, E.C.
1878, Dec. 9	TUNLEY, GEORGE	14, Clement's Lane, E.C.
1883, Feb. 26	TURNER, FREDERICK JOHN	Mansfield-Woodhouse, Mansfield, Notts.
1869, Feb. 8	TURNER, WILLIAM	1, Butter Market, Ipswich, Suffolk.
1879, May 12	TURNER, WILLIAM WEBB	9, Clinton Place, Seaford, Sussex.
1883, Feb. 26	VAIZEY, JOHN GEORGE	Bocking, Braintree, Essex, and 68A, Lincoln's Inn Fields, W.C.
1880, Feb 16	VAUGHAN, EVAN	6, Moorgate Street, E.C.
A. '73, Dec. 8; F. '78, Nov. 11	VENABLES, FREDERICK	62, Chancery Lane, W.C.
1876, Feb 21	*VERNON, ARTHUR	Borshams, High Wycombe, Bucks; and 26, Great George Street, Westminster, S.W.
1880, Mar. 1	*VERNON, WALTER LIBERTY	4, Trinity Street, Hastings; and 26, Great George Street, Westminster, S.W.
1882, May 22	VIDLER, JAMES COLEMAN	Rye and Hastings, Sussex.
1876, Jan. 10	VIGERS, ASTLEY	4, Frederick's Place, E.C.
1871, Dec. 4	VIGERS, EDWARD, JUN.	38, Parliament Street, Westminster, S.W.
1868, Jun. 15	VIGERS, FRANCIS (*Member of Council*)	4, Frederick's Place, E.C.
1868, Jun. 15	VIGERS, ROBERT	4, Frederick's Place, E.C.
1872, Dec. 9	VULLIAMY, GEORGE	Metropolitan Board of Works, Spring Gardens, S.W.
1882, Dec. 18	WADE, JOHN	Barnsley.
1881, Dec. 19	WAINWRIGHT, CHARLES RAWLINSON	Shepton Mallet, Somerset.
1882, Dec. 18	WAINWRIGHT, CHARLES RAWLINSON, JUN.	Shepton Mallet, Somerset.
1883, Feb. 26	WAISTELL, WILLIAM	Barnard Castle, Durham, and 6, Arden Street, Darlington.
1882, Feb. 18	WALKER, HERBERT	Newcastle Chambers, Angel Row, Nottingham.
1881, Dec. 19	WALKER, SAMUEL	22, Moorgate Street, E.C.
1882, Mar. 27	WALMISLEY, ARTHUR THOMAS	5, Westminster Chambers, S.W.
1868, April 16	WARD, JOHN GEORGE RODNEY	Yatton Court, Kingsland, Herefordshire.
1881, Dec. 19	WARE, CHARLES EDWIN	Gandy Street Chambers, Exeter.
1869, Jan. 25	WARING, THOMAS	St. John's Square, Cardiff.
A. '69, Mar. 8; F. '75, Apr. 12	WARNER, WILLIAM HENRY	130, Mount Street, Grosvenor Square, W.
1883, Jan. 29	WATERMAN, JAMES	Ashford, Kent.
1868, Jun. 15	WATNEY, DANIEL (*Member of Council*)	62, Old Broad Street, E.C.
1880, Mar. 1	WATSON, HERBERT EDWARD	Thorney, near Peterborough.
1882, Apr. 24	WATSON, JOHN	Shirburn Castle, Tetsworth, Oxon.
A. '76, Dec. 18; F. '79, Nov. 10	WATTS, CHARLES	25, Bedford Row, W.C.
1872, May 6	WEALL, JOHN	38, High Street, Watford.
1882, Jan. 16	WEAVER, WILLIAM	Town Hall, Kensington, W.
1869, Dec. 6	WEBB, GEORGE	Tunstall, Sittingbourne, Kent.
1881, Dec. 19	WELLSTED, WILLIAM HENRY	Manor Street, Kingston-upon-Hull.
1882, Feb. 18	WESTBURY, GEORGE HENRY	The Knoll, Andover, Hants.
1868, Jul. 20	WESTBURY, GILES	Andover, Hants.

Date of Election and of Transfer.	FELLOWS.	
1882, Mar. 13	WHARTON, THOMAS GEORGE .	1, Basinghall Street, E.C.
1868, Nov. 9	WHICHCORD, JOHN	Palace Chambers, 9, Bridge Street, Westminster.
1882, Feb. 13	WHITE, JOHN.	Warrington, Lancashire.
1882, Jan. 16	WHITELEY, CHARLES PERCY .	76, Queen Street, E.C.
1874, Apr. 27	WIDNELL, FREDERICK GRAINGER	13, Parliament Street, Westminster, S.W.
A. '70, Feb. 7 / F. '76, Nov. 13	WIGRAM, JOHN	South Collingham, Newark, Notts.
1882, Jan. 30	WILKINSON, GEORGE AYSCOUGH	7, Poultry, E.C.
1868, April 2	WILKINSON, WILLIAM . . .	St. Stephen's Chambers, Telegraph Street, E.C.
1868, Jul. 20	WILLIAMS, GEORGE BARNES .	Frederick's Place, E.C.
1870, May 9	WILLIAMS, STEPHEN WILLIAM .	Rhayader, Radnorshire.
1880, Mar. 1	WILLIAMS, WILLIAM	Salop Road, Oswestry.
1868, Aug. 10	WILLMOT, FRANCIS	6, Waterloo Street, Birmingham.
1881, Dec. 19	WILSON, THOMAS SILK . . .	Albert Square, Manchester.
1882, Dec. 18	WING, WILLIAM	Caversham, Reading.
1868, Jun. 15	WITHALL, RICHARD AUGUSTUS .	29, Great George Street, Westminster, S.W.
1868, Jun. 15	WOOD, FREDERICK	34, Regency Square, Brighton.
1868, Jul. 13	WOOD, WILLIAM BRYAN . . .	Langley Green, Chippenham, Wilts
1881, Dec. 19	WOODS, HENRY	19 & 20, Walbrook, E.C.
1873, Feb. 10	WOODCOCK, RICHARD . . .	20, Darlington Street, Wolverhampton.
1882, Dec. 18	WOODHAMS, JAMES	50, Havelock Road, Hastings.
1875, Mar. 1	WOODTHORPE, EDMUND. . .	2, Coleman Street Buildings, Moorgate St., E.C.
1881, Feb. 21	WOOLLEY, REGINALD. . . .	South Collingham, Newark, Notts.
A. '76, Feb. 7 / F. '80, Nov. 8	WOOLLEY, THOMAS CECIL SMITH	South Collingham, Newark, Notts.
1868, Jun. 15	WOOLLEY, THOMAS SMITH . . (*President*)	South Collingham, Newark, Notts.
A. '71, Nov. 13 / F. '77, Jan. 29	WOOLLEY, WILLIAM EDWARD .	Loughborough, Leicestershire.
1872, Dec. 9	WRIGHT, WILLIAM EDWARD .	King's Lynn, Norfolk.
1872, Apr. 22	WRIGHT, WILLIAM	Wollaton, Nottinghamshire.
1882, Jan. 30	WYATT, OLIVER NEWMAN . .	St. John Street, Chichester.
1876, Feb. 21	YEOMAN, GEORGE DUNDAS . .	Priory Lodge, Bedford, Bedfordshire.

Professional Associates.

The names of those Professional Associates who have qualified for the Class by Examination are distinguished thus *

Date of Election.		
1881, Dec. 19	ADKIN, CHARLES DUNCAN . .	Wantage, Berks.
1881, Jan. 10	ANDERSON, ROBERT	25, Bedford Row, W.C.
1868, May 21	ATTENBOROUGH, ALFRED . .	28, Mount Street, W.
1882, Apr. 24	AYRES, CHARLES PRYOR . .	Gresham Lodge, Watford, Herts.
1868, Nov. 2	BADCOCK, PHILIP	9, Whitehall Place, S.W.
1881, Dec. 19	BAILEY, LEONARD	Leigham Court Road, Streatham.
1879, Dec. 8	BALDING, ALBERT	Barkway, Herts.
1881, May 16	BEADEL, HENRY GRANT . . .	97, Gresham Street, E.C.
1868, Nov. 9	BEAUCHAMP, CHARLES DAVIE .	9, Whitehall Place, S.W.

Date of Election.	PROFESSIONAL ASSOCIATES.	
1880, Jan. 19	BECK, T. COKER	Sherborne St. John, Basingstoke, Hants.
1883, May 25	*BEDELLS, CHARLES HERBERT .	6, John Street, Bedford Row, W.C.
1883, Jan. 29	BENSON, THOMAS	Estate Office, Bedford.
1878, Feb. 11	BEVAN, WALTER	Melton Hill, Townsville, Queensland.
1875, Feb. 1	BIDWELL, SHELFORD . . .	9, Whitehall Place, S.W.
1883, Jan. 29	BISHOP, REGINALD GEORGE .	2, Godliman Street, Doctors' Commons, E.C.
1875, Feb. 1	BLAKEWAY, JOHN	5, Bloomsbury Square, W.C.
1878, May 18	BLOSSE, EDWARD F. LYNCH .	23, The Parade, Cardiff.
1882, Feb. 27	BOA, ANDREW.	Great Thurlow, Newmarket, Suffolk.
1883, May 25	*BONTOR, FRANK ARTHUR . .	5, Lancaster Place, W.C.
1879, Mar. 31	BOODLE, FRANCIS EDWARD . .	4, Whitehall, S.W.
1882, Dec. 18	BOOTH, JOHN FREDERICK . .	25, Windle Street, St. Helen's, Lancashire.
1881, Dec. 19	BRADLY, WILLIAM	Metropolitan Board of Works, Spring Gardens, S.W.
1882, Dec. 18	BROWN, WILLIAM ARTHUR . .	146, Goswell Road, E.C.
1883, May 21	BUCKLAND, WILLIAM THOMAS .	9, Whitehall Place, S.W.
1882, Apr. 24	CARD, HENRY	North Street, Lewes, Sussex.
1882, Mar. 27	CARD, HENRY CURTIS . . .	North Street, Lewes, Sussex.
1870, Dec. 12	CARDALL, FREDERIC WILLIAM .	9, Whitehall Place, S.W.
1870, May 9	CATLING, ROBERT CHARLES . .	Needham Hall, Elm, Cambridgeshire.
1880, Dec. 13	CLARK, HARDING THOMAS . .	4, Agar Street, Strand, W.C.
1876, Feb. 7	CLAYDEN, WALTER	6, Moorgate Street, E.C.
1882, Feb. 27	COLGATE, THOMAS, JUN. . . .	Glynde, Lewes, Sussex.
1882, Dec. 4	COLLINS, MARCUS E. . . .	61, Old Broad Street, E.C.
1874, Jan. 5	COOKE, WILLIAM GEORGE . .	Engineer's Office, L. & S. W. Ry., Waterloo Bridge Station.
1882, Feb. 13	COOKE, WILLIAM STEPHEN . .	9, New Broad Street, E.C.
1881, May 16	CONNELLY, JOHN JOSEPH . .	Rugby Chambers, Great James Street, W.C.
1883, April 16	COUCHMAN, HENRY BOTELER .	Cherry Street, Birmingham.
1881, Jan. 10	COURTHOPE, ALEXANDER . .	Bignor Park, Pulborough, Sussex.
1882, Feb. 13	COWPER, RICHARD WILLIAM. .	81, High Street, Sittingbourne, Kent.
1870, Jan. 10	CRAWLEY, WILLIAM JEEVES . .	10, Waterloo Place, Pall Mall.
1883, May 25	*CRAWTER, JOHN, Jun. . . .	5, Bedford Row, W.C.
1881, Mar. 21	CRESSWELL, JOHN THEODORE ROSS	9, Whitehall Place, S.W.
1881, Feb. 7	CROFTS, EWAN NEVILE . . .	30, Lincoln's Inn Fields, W.C.
1883, Feb. 12	CROSS, JOHN	80, Cheapside, E.C.
1879, Mar. 17	CUDLIPP, WILLIAM	62, Old Broad Street, E.C.
1883, Jan. 29	CUMBERBATCH, CARLTON PARRY	9, Whitehall Place, S.W.
1883, May 21	DAFFARN, THOMAS ALFRED. .	41, Charing Cross, S.W.
1875, Feb. 15	DALE, JOHN	16, Whitehall Place, S.W.
1882, Jan. 30	DANSIE, FREDERICK CROWN. .	4, Frederick's Place, E.C.
1883, Feb. 26	DASH, ROLAND ASHFORD . .	The Hollies, Feltham, Middlesex.
1875, Apr. 26	DASHWOOD, FREDERICK LOFTUS	Kirtlington, Oxford.
1882, Dec. 18	DAVID, EDMUND USSHER . .	Llandaff, near Cardiff.
1882, Mar. 13	DAVIS, CHARLES JAMES . . .	32, Strand, W.C.
1883, May 21	DAWSON, HENRY AUFRERE . .	St. Leonard's, Tooting.

Date of Election.	PROFESSIONAL ASSOCIATES.	
1883, Jan. 29	DOBIE, HENRY	Rock House, Maidstone, Kent.
1882, May 22	DRAPER, ARTHUR THOMAS . .	Grey Friars, Leicester.
1882, Feb. 18	DREW, ALLEN	80, Cheapside, E.C.
1869, Jun. 28	EASTON, EDWARD.	9, Delahay Street, S.W.
1877, Apr. 16	EDWARDS, JOHN FREDERICK JAMES	Orleton, Tenbury, Worcestershire.
1879, Jan. 20	EILOART, FREDERICK EDWARD .	40, Chancery Lane, W.C.
1883, April 30	ELLIS, EDWARD FELIX . . .	5, Lancaster Place, W.C.
1880, Mar. 15	ELLIS, ERNEST HAROLD . .	132, High Street, Guildford.
1881, Dec. 19	ELWELL, WILLIAM HENRY . .	Surveyor's Office, Great Northern Railway, King's Cross, N.
1869, Feb. 8	FAWCETT, JAMES POGUE. . .	5, Lancaster Place, W.C.
1880, Jan. 19	FENNING, HERBERT SAMUEL .	Park Farm Office, Woburn, Bedfordshire.
1881, Feb. 7	FEW, HARRY GARRARD . . .	Market Place, Newbury.
1883, April 16	FISHER, CHARLES BROWNING .	Hill Crest, Market Harborough.
1883, April 2	FLETCHER, GEORGE RIVERS. .	10A, Old Broad Street, E.C.
1882, Feb. 18	FLINT, WILLIAM HURST . . .	5, Lancaster Place, W.C.
1882, Feb. 18	FULLER, GEORGE JOHN . . .	35, Bucklersbury, E.C.
1883, May 21	FULLER, HERBERT HENRY . .	1, Queen Victoria Street, E.C.
1882, Feb. 18	FURRER, HENRY AUBREY . .	6, Upper Hamilton Terrace, N.W.
1882, Dec. 18	FYFE, GEORGE PETERS COLLIER	4, Walm Lane, Willesden Park, N.W.
1883, Jul. 27	GARRARD, ARTHUR	17, Finsbury Square, E.C.
1882, Jan. 16	GARROD, HERBERT JAMES . .	Bell Street, Reigate, Surrey.
1878, Dec. 9	GIBSON, WALTER MATTHEW .	Privy Purse Office, Buckingham Palace, S.W.
1883, May 25	GORE, WILLIAM JOLL . . .	7, Hobart Place, S.W.
1882, Dec. 4	GRANT, JAMES	Dol-llys, Cottage, Llanidloes, Montgomeryshire.
1882, Jan. 16	GURNEY, HAROLD	8, Upper Hamilton Terrace, N.W.
1882, Feb. 27	HAMILTON, JOHN PAYNTER . .	64 and 65, Coleman Street, E.C.
1883, Feb. 12	HANSELL, REGINALD GODDARD.	4, Charlotte Street, Bedford Square, W.C.
1881, Feb. 21	HARPER, EDGAR JOSIAH . .	8, Clandown Villas, Turnpike Lane, Hornsey.
1878, Jan. 28	HARRINGTON, GEORGE FREDERICK	16, Abchurch Lane, E.C.
1878, Dec. 9	HARVEY, JOHN JAMES SAYER .	24, Mount Charles, Belfast.
1883, May 25	*HASLUCK, LANCELOT GERALD .	Green Hill Park, New Barnet, Herts.
1880. Dec. 18	HEDGER, ARTHUR CONSTANTINE	80, Cheapside, E.C.
1882, Nov. 18	HENDERSON, HENRY ARTHUR .	Woodchurch House, West Hampstead, N.W.
1883, April 16	HENRY, EDWARD HUGH. . .	2, The Pavement, Clapham Common, S.W.
1882, Dec. 18	HEWITT, WILLIAM	62, Commercial Street, Hereford.
1883. May 21	HICKS, STANLEY	Oakfield, Streatham Hill, S.W.
1881, Dec. 19	HINE, GEORGE ERNEST . . .	5, Waterloo Place, S.W.
1883, Feb. 26	HOLBECHE, ÆMILIAN HENRY .	26, Pinfold Gate, Loughborough.
1883, Feb. 12	HOLLAND, THOMAS JAMES, JUN.	1, Pembroke Cottages, Edwardes Square, Kensington, W.
1883, Jan. 29	HOLMES, JAMES THOMAS . .	97, Gresham Street, E.C.

Date of Election.	PROFESSIONAL ASSOCIATES.	
1882, Nov. 18	HOMFRAY, WILLIAM FRANCIS .	Rease Heath Estate Office, Nantwich, Cheshire.
1868, Jul. 20	HORSLEY, RICHARD	11, Bull-and-Mouth Street, E.C.
1883, Jan. 15	HOWELL, ERNEST JOHN . .	47, Lower Belgrave Street, S.W.
1881, Dec. 19	HUMBERT, SYDNEY . . .	Lincoln's Inn Fields (corner of Serle Street), W.C.
1881, Feb. 7	INGLEBY, HERBERT	Hardingstone, Northampton.
1882, Dec. 18	INGRAM, HENRY LAW . . .	97, Gresham Street, E.C.
1879, Nov. 24	JESSETT, CHARLES . . .	62, Old Broad Street, E.C.
1881, Dec. 19	JONES, THOMAS	3, Old Palace Yard, S.W.
1883, May 25	*JOHNSON, HENRY.	37, Walbrook, E.C.
1870, Jan. 24	JOHNSTON, ANDREW	97, Gresham Street, E.C.
1883, May 25	*JONES, HENRY ARTHUR . . .	53, Maida Vale, W.
1875, Dec. 18	KAYE, JOHN EDWARD . . .	Grove Hall, Wakefield.
1881, Dec. 19	KEATES, WILLIAM ALLEN . .	The Iron Market, Newcastle, Staffordshire.
1883, Jan. 29	KEER, WILLIAM	80, Cheapside, E.C.
1881, May 16	KETTLE, FREDERICK CHARLES .	Tower Chambers, Moorgate Street, E.C.
1882, Dec. 18	KNOLLYS, EDWARD HOLDSWORTH	Fitzhead Court, near Taunton, Somerset.
1882, Dec. 18	KNOWLES, HENRY	Wells Green, Gloucester.
1876, Apr. 8	LEE, GEORGE CANSFIELD . .	North Eastern Railway, York.
1881, Dec. 19	LEONARD, HENRY HOLMES . .	202, Bishopsgate Street Without, E.C.
1883, May 21	LITTLE, WILLIAM DAVIS. . .	Middleton Stoney, Bicester, Oxon.
1882, Dec. 18	LOMER, MONTAGUE FRANK .	52, Queen Victoria Street, E.C.
1877, May 14	LUCAS, JOSEPH	Heene Cottage, Worthing, Sussex; and Tooting Graveney, S.W.
1882, April 2	LYSTER, THOMAS RICE SOMERVILLE	Gisburn, Prince's Park, Liverpool.
1877, Jan. 15	MARRIOTT, GEORGE WHARTON .	Blankney, Sleaford, Lincoln.
1881, Nov. 14	MARSHALL, LIONEL HASLER .	Chippenham, Wilts.
1876, Nov. 27	MARTIN, CHARLES WILLIAM .	Quorn Place, Loughborough, Leicestershire.
1882, Jan. 16	MARTIN, WALTER	Wainfleet, Lincolnshire.
1878, May 13	MAUGHAN, JOSEPH HENRY . .	9, New Street, Great Grimsby.
1878, Jan. 28	MESTON, JOSEPH FYFE . . .	20, Spring Gardens, S.W.
1882, Feb. 13	MILNES, ROBERT, JUN. . . .	Collingham House, Upper Tulse Hill, S.W.
1883, May 25	*MOYES, JOHN HELENUS . . .	St. Mary's Street, Ely, Cambridgeshire.
1882, Dec. 18	NEWMAN, CHARLES HENRY. .	97, Gresham Street, E.C.
1880, Jan. 19	NEWMARCH, HENRY CHARLES .	10, Lincoln's Inn Fields, W.C.
1874, Feb. 2	NIXON, SAMUEL	29, Great George Street, S.W.
1878, Feb. 11	NORRIS, WALTER HENRY . .	St. Andrew's, Watford, Herts.
1881, Dec. 19	NOTTAGE, WILLIAM GRIGGS . .	High Street, Windsor.
1882, Mar. 13	PAGE, THOMAS GOWLAND . .	57, Coleman Street, E.C.

Date of Election.	PROFESSIONAL ASSOCIATES.	
1880, Jan. 19	PARKER, CECIL THOMAS, THE HON. (*Professional Associate of Council*)	Eccleston, Chester.
1861, Dec. 5	PARKIN, JOHN ROBERT	Idridgehay, near Derby.
1883, May 25	*PAIN, JAMES	Borough, Micheldever, Hants.
1883, May 25	PARSONS, ROBERT MAURICE PETERS	Misterton, Crewkerne, Somerset.
1883, May 25	*PAULL, ALAN	50, Highgate Road, N.
1875, May 10	PAYNE, WILLIAM PERCY	Holmesdale, The Park, Nottingham.
1872, Nov. 11	PAYNE, WILLIAM SETH ROBERT	9, Rood Lane, E.C.
1882, Dec. 18	PEACE, ALFRED LINDLEY	Thorne, Doncaster.
1869, Dec. 6	PETRE HENRY WILLIAM, THE HON.	Springfield, Chelmsford, Essex.
1883, May 25	*PILDITCH, PHILIP EDWARD	17, Parliament Street, S.W.
1875, Jan. 4	PLEDGER, JOSEPH AUGUSTUS	Boreham Lodge, Chelmsford.
1882, May 22	RAINEY, JOSEPH HARGROVE	2, Hales Cottages, King Street West, Kingston, Ont., Canada.
1883, April 16	REID, FRANCIS	Bucksford House, Ashford, Kent.
1882, Apr. 24	REX, CHARLES WILLIAM	311, Kentish Town Road, N.W.
1882, Apr. 24	REX, FRANCIS HERBERT	311, Kentish Town Road, N.W.
1883, Jan. 29	RIGDEN, CHARLES FURNER	22, Prince's Street, Hanover Square, W.
1876, Jan. 24	ROBERTS, CHARLES	3, Upper Montague Street, Russell Square, W.C.
1882, Feb. 13	ROBERTS, CHARLES GORDON	42, New Broad Street, E.C.
1882, Feb. 13	ROBEY, ROBERT	Oaklands, East Tytherley, near Romsey, Hants.
1882, Jan. 30	ROBINSON, JAMES THOMAS	11, Waterloo Place, S.W.
1882, Apr. 24	ROBINSON, MARTIN CATLIN	66, Cannon Street, E.C.
1883, May 25	*†ROLLESTON, WILLIAM GUSTAVUS STANHOPE	Grey Friars, Leicester.
1883, April 30	ROWLANDSON, CHRISTOTHER	The College, Durham.
1883, May 25	*RUNDLE, EDWARD COLLINS	Bedford Office, Tavistock, Devon.
1883, Feb. 26	RYDE, CHARLES BERTRAM	20, Great George Street, S.W.
1883, May 25	*‖SATCHELL, CHARLES	Madeira Place, Newbury, Berks.
1882, Mar. 13	SAVILL, ALFRED, JUN.	2, Hales Cottages, King Street West, Kingston Ont., Canada.
1883, Jan. 15	SCAMMELL, THOMAS	34, Corn Street, Bristol.
1882, Feb. 13	SCRIVEN, CHARLES HERBERT	Oakley House, Scole, Norfolk.
1880, Feb. 16	SEXBY, JOHN JAMES	Metropolitan Board of Works, Spring Gardens S.W.
1882, Nov. 13	SEYMOUR, RICHARD ARTHUR HAMILTON	Preston Hall Farm, Aylesford, Kent.
1883, May 21	SHAW, JOHN, JUN.	The College, All Saints', Derby.
1882, Jan. 16	SHERWIN, JOSEPH HENRY	16, Whitehall Place, S W.
1882, May 8	SIMMONS, CHARLES FRANKLIN	Henley-on-Thames; and Basingstoke, Hants.
1882, Dec. 4	SIMMONS, WILLIAM ANKER	Henley-on-Thames.
1882, Dec. 18	SKINGLE, ALFRED	5, Lancaster Place, W.C
1879, Mar. 17	SMITH, GEORGE CECIL	16, Whitehall Place, S.W.
1882, Jan. 16	SMITH, GERALD HENRY LABOUCHERE	10, Argyll Street, Regent's Street, W.
1883, Jul. 27	SMITH, HERBERT EDMUND	Darlington, Durham.
1882, Apr. 24	SMITH, REGINALD W.	1, Temple Row West, Birmingham.
1883, Feb. 12	SMITH, WHEATER	28, Edinburgh Street, Bradford.
1882, Jan. 16	SMITH, WILLIAM CHARLES HENRY ALSTON	25, Cannon Street, Birmingham.

† Institution Prizeman, 1883. ‖ Special Prize, 1883.

Date of Election.	PROFESSIONAL ASSOCIATES.	
1883, Nov. 9	SMYTH, EDWARD	9, Whitehall Place; and 52, Wiltshire Road, Brixton, S.W.
1883, Jan. 15	STACEY, WILLIAM	80, Cheapside, E.C.
1883, Mar. 12	STENNING, PERCY HAINES	27, Fenchurch Street, E.C.
1882, Jan. 16	STEVENSON, FREDERICK J.	4, Frederick's Place, E.C.
1882, Dec. 4	STOWER, JOSEPH	5, Lancaster Place, W.C.
1876, Mar. 20	ST. QUINTIN, RICHARD SAMUEL	37, Threadneedle Street, E.C.
1875, Dec. 18	STRUTT, EDWARD GERALD, THE HON.	Terling Place, Witham, Essex.
1882, Feb. 13	SWINSCOW, HAROLD EDWIN	97, Gresham Street, E.C.
1882, Feb. 27	TAPP, ARTHUR	Shortlands, Kent.
1882, Apr. 24	TARLETON, ROGER	2, Bennett's Hill, Birmingham.
1881, Dec. 19	*†¶TARRANT, WALTER	The Close, Warminster, Wilts.
1869, Jul. 26	TAYLOR, GEORGE	Tithe and Inclosure Commission Office, St. James's Square, S.W.
1881, Dec. 19	TAYLOR, JOHN WILLIAM	83, Westgate Road, Newcastle-upon-Tyne.
1882, Dec. 18	TEWSON, EDWARD ARTHUR	80, Cheapside, E.C.
1882, Apr. 24	THEOBALD, HENRY	1, Deanery Road, Romford Road, Stratford, E.
1883, Jan. 15	THORNTON, WILLIAM HENRY	The Surveyor-General's Department, Ceylon.
1882, Feb. 13	THORPE, CHRISTOPHER	Rose Hill, Chesterfield.
1880, Dec. 18	THURNALL, JOHN EDWARD	Royston, Herts.
1883, May 25	*‡TREADWELL, HENRY JOHN	The Birches, Brixton Hill, S W.
1882, Mar. 13	TRETHEWY, HENRY, JUN.	Silsoe, near Ampthill, Beds.
1880, Dec. 18	TROLLOPE, HENRY CHARLES	Elmfield, Streatham, S.W.
1878, Jan. 28	VIGERS, LESLIE ROBERT	4, Frederick's Place, Old Jewry, E.C.
1880, Dec. 18	VIGERS, MARTIN	52, Queen Victoria Street, E.C.
1879, Mar. 8	WAKEFIELD, GODFREY	40, Chancery Lane, W.C.
1880, Mar. 1	WALKER, LEON VICTOR	40, Chancery Lane, W.C.
1882, Feb. 13	WATERS, WILLIAM RICHARD	Care of J. C. Waters, The Gas Company, Horseferry Road, S.W.
1883, May 21	WATNEY, WALTER DANIEL	9, Whitehall Place, S.W.
1881, Dec. 19	WEBB, JONAS MARSHALL	27, Market Place, Cambridge.
1883, April 16	WESTON, GEORGE	20, Oakington Road, St. Peter's Park, Paddington, W.
1883, April 30	WESTON, JOSEPH AURELIUS	22, Western Street, Bedford.
1882, Dec. 18	WILCOCKS, FREDERICK C.	202, Holland Road, Kensington, W.
1875, Jan. 18	WILLIAMS, LEONARD JAMES	6, Furnival's Inn, E.C.
1882, Dec. 18	WILLIAMS, TOM	35, St. Julian's Road, Kilburn.
1880, Jan. 19	WILLIAMS, WILLIAM HERBERT	Llandaff, Glamorganshire.
1876, Apr. 8	WILLIAMS, WILLIAM WELSBY	Farnham, Surrey.
1882, Apr. 24	WILLMOT, JOHN	6, Waterloo Street, Birmingham.
1883, Jan. 29	WOLFE, WALTER JAMES	25, Clarendon Road, Notting Hill, W.
1879, Mar. 17	WOOD, HENRY	97, Gresham Street, E.C.
1882, Jan. 16	WOODWARD, WILLIAM	13, Granville Square, W.C.
1881, Dec. 19	WREATHALL, ROBERT T.	30, Walbrook, E.C.
1880, Dec. 18	WRIGHT, THOMAS HAWKINS	Grendon Hall, Northampton.
1881, Jan. 10	YOUNG, ANDREW	5, Bell Yard, Temple Bar, E.C.
1878, Dec. 9	YOUNG, MORGAN HENRY	6, John Street, Bedford Row, W.C.

† Institution Prizeman, 1881. ¶ Passed Fellowship Examination, 1883.
‡ Driver £25 Prize, 1883.

Associates.

Date of Election.		
1876, Mar. 20	ACLAND, SIR THOMAS DYKE, BART., M.P.	Killerton, Exeter.
1882, Mar. 27	ANDERSON, CHARLES HENRY	9, King's Bench Walk, Temple.
1860, Dec. 13	BANKES, JOHN ELDON	4, Elm Court, Temple.
1868, Jul. 27	BARRY, JOHN WOLFE	23, Delahay Street, Westminster, S.W.
1875, Dec. 13	BATTEN, JOHN WINTERBOTHAM	3, Harcourt Buildings, Temple.
1876, Dec. 18	BAZALGETTE, CHARLES NORMAN	1, Essex Court, Temple.
1879, Feb. 8	BEALE, JAMES SAMUEL	28, Great George Street, S.W.
1869, Feb. 23	BIDDER, GEORGE PARKER, Q.C.	3, Paper Buildings, Temple.
1875, Feb. 1	BIRCH, ROBERT WILLIAM PEREGRINE	2, Westminster Chambers, S.W.
1868, Jun. 23	BRAMWELL, SIR FREDK. JOSEPH, F.R.S. (*Associate of Council*)	5, Great George Street, Westminster, S.W.
1869, Jul. 26	CARLISLE, WILLIAM THOMAS	8, New Square, Lincoln's Inn, W.C.
1879, Jan. 6	CASSERLEY, SAMUEL WILLIAM	7, Crown Office Row, Temple.
1871, Feb. 13	CASTLE, EDWARD JAMES	8, King's Bench Walk, Temple.
1876, Nov. 13	CLARKE, DANIEL	Easton Street, High Wycombe, Bucks.
1882, Mar. 27	DAY, WILLIAM ANSELL	18, New Bridge Street, Blackfriars, S.E.
1883, April 16	DETHRIDGE, FRANK	Vestry Hall, Harrow Road, Paddington, W.
1882, April 30	DRUCE, SAMUEL BENJAMIN LARGE	2, Old Buildings, Lincoln's Inn, W.C.
1869, Feb. 23	FOWLER, JOHN	2, Queen Square Place, S.W.
1878, Feb. 11	FREEMAN, GEORGE MALLOWS	11, King's Bench Walk, Temple.
1878, Mar. 11	FRESHFIELD, EDWIN	5, Bank Buildings, E.C.
1876, Mar. 20	FRESHFIELD, WILLIAM DAWES	5, Bank Buildings, E.C.
1877, Mar. 12	FULTON, HAMILTON	Salisbury, Wilts.
1876, Dec. 18	GEDGE, SYDNEY	1, Old Palace Yard, S.W.
1879, Apr. 28	GEPP, CHARLES BRAMSTON OSBORNE	Chelmsford, Essex.
1874, Feb. 16	GOLDNEY, GABRIEL PRIOR	3, Essex Court, Temple.
1869, Jan. 11	GRANTHAM, RICHARD BOXALL	22, Whitehall Place, S.W.
1874, Jan. 5	GRANTHAM, RICHARD FUGE	22, Whitehall Place, S.W.
1881, Mar. 21	GRANTHAM, WILLIAM, Q.C., M.P.	6, Crown Office Row, Temple.
1881, Dec. 19	GROVES, WILLIAM	28, Great George Street, S.W.
1880, Dec. 13	GULLY, WILLIAM COURT, Q.C.	Farrar's Buildings, Temple.
1881, Dec. 19	HALSEY, EDWARD JOSEPH	Pirbright, Surrey.
1882, Mar. 27	HAMILTON, HENRY BEST HANS	1, Brick Court, Temple.
1881, Dec. 19	HEAD, JOHN MERRICK	Reigate, Surrey.
1875, Dec. 13	HIGGIN, WILLIAM HOUSMAN, Q.C.	4, St. James' Square, Manchester.
1875, Jan. 4	HILL, ALEXANDER STAVELEY, Q.C., M.P.	3, Garden Court, Temple; and Oxley Manor, Stafford.

Date of Election.	ASSOCIATES.	
1880, Dec. 13	JAMES, SIR HENRY, Q.C., M.P.	1, New Court, Temple.
1879, Dec. 8	JANSON, FREDERICK HALSEY	41, Finsbury Circus, E.C.
1873, April 21	KING, WILLIAM	Gas Office, Duke Street, Liverpool.
1874, Feb. 2	LEDGARD, FREDERICK THOMAS DURELL	1, Temple Gardens, Temple.
1874, Feb. 16	LITTLER, RALPH DANIEL MAKINSON, Q.C.	4, Temple Gardens, Temple.
1879, Dec. 8	LLOYD, EYRE	3, Sergeant's Inn, E.C.
1869, Mar. 8	LOTT, JOSEPH	19, Great George Street, S.W.
1874, Feb. 16	MARRIOTT, WILLIAM THACKERAY, Q.C., M.P.	6, Crown Office Row, Temple.
1879, Jan. 6	MEYSEY-THOMPSON, ALBERT CHILDERS	1, King's Bench Walk, Temple.
1875, Jan. 4	MICHAEL, WILLIAM HENRY, Q.C.	38, Parliament Street, S.W.
1881, Feb. 7	MOSLEY, TONMAN	Bangers, Iver, Uxbridge.
1882, Dec. 13	MUNTON, FRANCIS KERRIDGE	95A, Queen Victoria Street, E.C.
1876, Apr. 24	PARKER, FREDERICK SEARLE	17, Bedford Row, W.C.
1869, Feb. 22	PHILBRICK, FREDK. ADOLPHUS, Q.C.	Lamb Building, Temple.
1869, Apr. 5	PRICE-WILLIAMS, RICHARD	38, Parliament Street, S.W.
1871, Feb. 27	QUICK, JOSEPH, JUN.	29, Great George Street, S.W.
1868, Nov. 9	REES, JOHN CHARLES	13, Great George Street, S.W.
1882, Jan. 16	RIGG, HERBERT ADDINGTON	9, King's Bench Walk, Temple.
1875, Nov. 8	RYDE, EDWARD HARROW	Cranley House, Fontenoy Road, Balham, S.W.
1883, April 2	RYDE, WALTER CRANLEY	7, King's Bench Walk, Temple.
1882, Mar. 27	SHEARMAN, JOHN	2 & 3, New Inn, Strand, W.C.
1871, Feb. 13	SHIELD, HUGH, Q.C., M.P.	13, King's Bench Walk, Temple.
1879, Apr. 28	SLADEN, ST. BARBE	1, Delahay Street, Westminster, S.W.
1878, Apr. 8	SMITH, JOHN SMALMAN	3, Hare Court, Temple.
1879, Apr. 28	SMITH, LUMLEY, Q.C.	4, Paper Buildings, Temple.
1882, Jan. 16	STEPHENS, PEMBROKE S., Q.C.	1, Plowden Buildings, Temple.
1881, Jan. 24	STEVENSON, GEORGE WILSON	38, Parliament Street, S.W.
1875, Jan. 4	STRUTT, FREDERICK, THE HON.	88, Eaton Square; and Milford House, Derby.
1877, Dec. 10	SUTTON, HENRY	Farrar's Building, Temple.
1880, Dec. 13	THOMAS, HUBERT	Watford, Herts.
1868, Jul. 20	TROLLOPE, GEORGE FRANCIS	15, Parliament Street, Westminster, S.W.
1880, Jan. 5	TURNER, FRANCIS	5, Pump Court, Temple.
1876, Nov. 27	WEBSTER, RICHARD EVERARD, Q.C.,	2, Pump Court, Temple.
1871, Feb. 13	WHITE, FREDERICK MEADOWS, Q.C., (*Associate of Council*)	4, Paper Buildings, Temple.
1873, Jan. 27	WHITE, THOMAS JENNINGS	8, Whitehall Place, S.W.
1876, Dec. 18	WILL, JOHN SHIRESS	3, Pump Court, Temple.
1875, May 15	WINCKWORTH, LEWIS	31, Abingdon Street, Westminster, S.W.
1870, Jan. 10	WING, THOMAS TWINING	17, Woburn Square, W.C.
1882, Dec. 18	WOOLF, SIDNEY	7, King's Bench Walk, Temple.
1876, Apr. 24	WYATT, ROBERT	Lower House, Thursley, Godalming, Surrey.

Students.

Date of Admission.		
1883, Feb. 12	†ARNOTT, JOHN	Woodbridge, Suffolk.
1883, Feb. 12	†BARRATT, HARRY	Middle Street, Stourbridge, Worcestershire.
1883, Feb. 12	†BENSON, ROBERT ALAN	11, Caledonia Place, Clifton.
1883, Feb. 12	†BIRCH, WALTER DE HOGHTON	The Warren, Wootton-under-Edge, Gloucestershire.
1882, Feb. 13	¶BOUSFIELD, EDWIN VAUGHAN DAVENPORT	13, Emperor's Gate, South Kensington, S.W.
1882, Feb. 13	¶BOUSFIELD, WILLIAM GLADSTONE RICHINGS	13, Emperor's Gate, South Kensington, S.W.
1882, Feb. 13	¶BRYANS, JOHN GEORGE	28, South Street, Sunderland.
1882, Feb. 13	¶BRYMER, ARTHUR	29, Great George Street, S.W.
1883, Feb. 12	†BUCK, HERBERT WILSON	The Stalls, St. John's, Worcester.
1883, Feb. 12	†CARTER, FRANK WELLINGTON	Care of Messrs. Rawlence & Squarey, Salisbury.
1883, Feb. 12	†CLARK, HENRY COPLEY	97, High Street, Dorking.
1882, Feb. 13	¶CLARKE, STANLEY	132, Westbourne Terrace, Hyde Park, W.
1882, Feb. 13	¶CROSS, WILLIAM THOMAS ALFRED	53, Charing Cross, S.W.
1882, Feb. 13	*DAY, WILLIAM	6, Ashford Road, Maidstone, Kent.
1882, Feb. 13	¶DREW, HENRY ALBAN	Peamore, near Exeter.
1883, Feb. 12	†DUNNING, BERNARD SIMON	2, Warwick Square, S.W.
1883, Feb. 12	†GLASS, SYDNEY NEWTON	8, Upham Park Road, Chiswick.
1882, Feb. 13	¶GREY, RALPH GEOFFREY	55, Parliament Street, S.W.
1883, Feb. 12	†HALL, WILLIAM TIMOTHY	Vinter's Road, Maidstone, Kent.
1883, Feb. 12	†HARDING, SIDNEY PRYCE	St. Peter's Street, St. Alban's, Herts.
1883, Feb. 12	†JULL, WILLIAM VINCENT	Wrotham Lodge, Streatham Hill, S.W.
1883, Feb. 12	†KERR, ARTHUR HERBERT	Crookham, Farnham.
1882, Feb. 13	¶LANSDOWN, GEORGE ARTHUR	Grasdene, Spencer Hill, Wimbledon, Surrey
1883, Feb. 12	†MEAD, JOHN HENRY	Balcombe Rectory, Hayward's Heath.
1882, Feb. 13	†MIXER, EDWARD	7, Keith Grove, Shepherd's Bush, W.
1882, Feb. 13	*MOORE, HAROLD EDWARD	6, Queen's Avenue, Hastings.
1883, Feb. 12	†PENNINGTON, JAMES	Newbold-on-Avon, Rugby.
1883, Feb. 12	†SELBY, JOHN BASELEY	22, Mornington Road, Regent's Park, N.W.
1881, Feb. 7	‖SQUAREY, ROBERT CHARLES	Colorado Springs, United States, America.
1883, Feb. 12	†TIFFEN, JOHN HENRY	4, Grosvenor Terrace, Kingston-upon Hull.
1883, Feb. 12	†WATSON, JAMES BRUCE	Shirburn, Tetsworth, Oxon
1883, Feb. 12	†WILLARD, THOMAS	Dunchurch Road, Rugby.
1882, Feb. 13	¶WELCH, FREDERICK WILLIAM	4, Lansdowne Street, Hove, Brighton, Sussex.
1883, Feb. 12	†WRAIGHT, PERCIVAL	Le Mars, Iowa, United States, America.
1882, Nov. 13	WRIGHT, CHARLES WILLIAM	Wollaton, Nottingham.

‖ Passed Preliminary Examination 1881. ¶ Passed Preliminary Examination, 1882.
† Passed Preliminary Examination, 1883. * Passed Proficiency Examination, 1883.

To ensure the regular transmission of the Papers and Notices, it is particularly requested that any changes of address be communicated at once to the Secretary.

PROFESSIONAL EXAMINATIONS

(*Preliminary Work*).

LAND SURVEYING AND LEVELLING.

Instructions to Candidates.

The following arrangements have been made by the Council in connection with the Examination in the Subjects, Land Surveying and Levelling.

Candidates in Division II., Sub-Divisions I. and II.; Division III., Sub-Divisions I. and II.; and those Candidates in Division V., Sub-Division I. who bring up Land Surveying and Levelling in lieu of the Subject numbered 10 in that Sub-Division, will be required—

(1) To make a Survey with the chain of not less than 15 and not more than 20 acres of land (situated in any locality most convenient), comprising not less than 4 separate fields or inclosures, and having a minimum variation of 5 feet in the surface levels, and to take the angles of the principal inclosing and check lines with the theodolite, entering them in the proper place in the field books.

(2) To plot and draw the same, on a sheet of double elephant paper, to the scale of 1 chain to the inch, showing the construction lines, in red ink (numbered to correspond with the numbers in the field book), and the level lines and angles, together with any writing and ornament necessary for identifying the plan with the ground.

(3) To take a Section through the work in the direction of its greatest length and a Cross-Section, showing the maximum height of the surface levels, indicating the position of the level lines on the plan.

(4) To plot and draw the Section and Cross-Section at the foot of the plan to an horizontal scale of 1 chain to the inch, and a vertical scale of 10 feet to the inch, showing the crossings, figuring the lengths and heights, and assuming a datum of about 20 feet below the lowest part of the Section.

(5) To sign and forward, when completed in careful accordance with the foregoing directions, the Plan and Sections, with the Field Book and Level Book (also signed), addressed to the Secretary, not later than fourteen days before the commencement of the Examination for which the Candidate has entered his name.

(6) To forward, in addition to his Level Book, a separate copy of the same, with the levels unreduced.